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<p><i>Abstract</i></p> <p>Design for behaviour change is an area that is gathering much attention these days in the design field. Its momentum probably spurred by decline in different areas seen around us. This is probably why there are uprisings of movements that attempt to move us away from current scenarios. We cannot really quantify the state of cooking behaviour due to its complex composition; but with the presence of food movements and their growing exertive pressures around the world, one cannot help but respond with some proposal to not only aid the situation but on a reflective level, realise that there is something to protect and maintain. Cooking behaviour is my response to part of these provocations; and because it deals with an individual on such a personal level, it can perhaps put the control back into our hands, the way we handle food choices with everyday situations. The exploration of this thesis therefore tackles cooking behaviour headlong, seeing that a comprehensive understanding of this construct will allow one to address behaviour holistically and ultimately inculcatively. For when the behaviour has been inculcated, external forces will hopefully lose its power and supportive forces can be activated because the individual has been primed. To reach this destination, the understanding of cooking behaviour is run through an iterative design-research process to form a draft framework of cooking behaviour. This research process synthesises existing information on cooking behaviour with behaviour theory concepts to really address the core of the activity. User studies are contextual avenues to evaluate and update the generated information. Behaviour change concepts come in on an explorative level to evaluate the outcomes of this process and steer the iterative cycle in potential directions to solidify the framework. Essentially, we not only get an understanding of cooking behaviour at the end of this thesis but also a point of departure regarding the handling of behaviour change. All this in hope that the outcomes can be an inspiring and acute guide for behaviour changing design in the area of cooking and then food.</p>		
<p><i>Keywords</i></p> <p>Behaviour, behaviour change concepts, behaviour theory, Piaget, constructivism, cooking, design for change, in-depth interviews, iterative research process</p>		

**CHANGE**

*Cooking towards a better future.*

DESIGN FOR BEHAVIOUR



# Design for Behaviour Change

Cooking towards a better future.

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Master of Arts Thesis  
Aalto University School of Art and Design  
Department of Design  
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## ABSTRACT

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Design for behaviour change is an area that is gathering much attention these days in the design field. Its momentum probably spurred by decline in different areas seen around us. This is probably why there are uprisings of movements that attempt to move us away from current scenarios. We cannot really quantify the state of cooking behaviour due to its complex composition; but with the presence of food movements and their growing exertive pressures around the world, one cannot help but respond with some proposal to not only aid the situation but on a reflective level, realise that there is something to protect and maintain. Cooking behaviour is my response to part of these provocations; and because it deals with an individual on such a personal level, it can perhaps put the control back into our hands, the way we handle food choices with everyday situations. The exploration of this thesis therefore tackles cooking behaviour headlong, seeing that a comprehensive understanding of this construct will allow one to address behaviour holistically and ultimately inculcatively. For when the behaviour has been inculcated, external forces will hopefully lose its power and supportive forces can be activated because the individual has been primed. To reach this destination, the understanding of cooking behaviour is run through an iterative design-research process to form a draft framework of cooking behaviour. This research process synthesises existing information on cooking behaviour with behaviour theory concepts to really address the core of the activity. User studies are contextual avenues to evaluate and update the generated information. Behaviour change concepts come in on an explorative level to evaluate the outcomes of this process and steer the iterative cycle in potential directions to solidify the framework. Essentially, we not only get an understanding of cooking behaviour at the end of this thesis but also a point of departure regarding the handling of behaviour change. All this in hope that the outcomes can be an inspiring and acute guide for behaviour changing design in the area of cooking and then food.



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**1**

# INTRODUCTION



## 1.1. OVERVIEW OF THESIS

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The structure of this thesis will take a less formal and traditional route, in that it will reflect my own thought process as I went through different types of information and reassessed my thoughts and understanding of the topic. Therefore the literature reviews may be interspersed with analyses, similar to how I took new information and applied them iteratively to findings and evaluations at that moment in time, reaching new perspectives.

Therefore, this is as much an exploration into cooking behaviour and cooking-behaviour change, as it is a reflective documentation of a design research process. Which is why we will survey the Methodology first to understand the process, before embarking on the Background chapter.

In this regard, literature research also acts as a tool to drive the investigative process, before narrowing the findings towards tangible leads. Due to the critical nature of the cognitive process, I believe this flow is necessary, so the reader can understand why I have reached certain opinions with regards to existing work, and hopefully exert such introspection on their own role in their disciplines as well as the role of design with regards to cooking behaviour.

This very human commentary is therefore also an attempt to offer some insight into the overly hyped 'design thinking' process, well, basically how a designer thinks; and challenge one to confront the vulnerability of this approach, dealing with uncertainties and placing design in the back seat first but still using those designerly eyes to keep an eye on the road.

## 1.2. MOTIVATION

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When I first proposed this topic, one of the comments made in jest was if I was going to redesign the already often redesigned kitchen space. Regarding the possible research I could do on a supposedly well-known everyday practice and objects of design, what can be found that is not already clear?

Of course the purpose was not to find fault with an already functioning activity. But to truly understand the motivation behind the embarkation of this thesis, one has to reveal one's assumptions to become vulnerable to the topic area. Although not usual of a master's thesis, I share these assumptions to reveal the designer's journey and cognitive process while dealing with this important and dear topic:

1. Cooking behaviour is in decline.
2. This might be due to increasing barriers towards preferring to cook, which could include a faster pace of life in many urban areas, the way food is provided, diminishing gender bias roles in the domestic and career environment and the cost of living, amongst others.
3. Cooking skills and some cooking traditions will be lost when generations fail to pass down the baton.
4. This decline in cooking behaviour contributes to poor food choices which relate to personal wellbeing – on a literal level, we are indeed what we eat.
5. Although many food movements do bring up the cooking issue, and many cooking shows aim to help people cope with the activity and spice it up, it usually ends up attracting mostly food enthusiasts, or the social cook, than the everyday cook or everyday eater.

To address my own personal assumptions about current cooking behaviour, this thesis was a platform to dive deeply back into this everyday activity and activity space. The idea was to question how the everyday became the everyday and the circumstances we have come to accept and adapt our behaviour to. It was also important for me to establish the context before I contribute to the world of consumerism if I should choose to do so in the future. In some ways, naiveness and an effort to be noble were also key motivators in this research quest.

Being an avid cook and kitchen lover myself, it was easy to become bias and wonder about the 'why not' than the 'why

so'. It was thus important for myself before I exert my design perspective later in the process, that I have a humbled and objective view of this topic, in order to absorb the most from people's stories.

Having gone through the Usability School, the collaboration with the behavioural sciences seemed slightly fleeting and superficial. One could not help but wonder if design articles about behavioural understanding are simply a watered down version of these intricate knowledge, fuelled by common sense and intuition. That being said, I believe intuition through practise is a designer's unique skill and quite often it leads us to the beginning of new investigations and better understanding of the topic; seeking clarification, gaining confidence and then finally contributing back to society.

Quite often it seems like we are designing for actions that are already in place, but with the notion of changing behaviour, we now get to question how these actions began in the first place, and thus address the issue from there. Which is why it will be important for me to go into the behavioural sciences, to tap on their long history of research on behaviour, which I hope will help me with my evaluation of existing cooking behaviours. Making up part of the above assumptions as well, perhaps it is time to step back from the approach of physical spaces and products that are designed for the activity of cooking and eating and understand the fruition of the activity itself first. It is with this thesis that I try to investigate how and when one even starts to grasp the notion of cooking, and to see if there are missing links between the systems set in place and the areas where we can affect positive change with regards to cooking behaviour.

If the assumptions are true, then it is time to re-look the activity of cooking and shake-up default cooking behaviours!

### 1.3. OBJECTIVES

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1. To establish the level of impact cooking has on wellbeing and its current status now in Finnish households.

*Background research and previous studies on cooking behaviour would provide information on whether we should rejuvenate the cooking scene in the home environment. User studies would provide answers to some of the assumptions while providing specific cultural insights to the case study area.*

2. To understand what cooking behaviour is and if the understanding of the development of behaviour can reveal the factors that influence and shape cooking behaviour.

*Consolidating cooking behaviour understanding from the background research will help provide something to synthesise with behavioural theories. Understanding these theories will be the core of this investigation, providing some guide to analyse user findings with.*

3. To question, apply and/or modify behavioural change concepts to the specific context of cooking behaviour.

*The intention here is to critically process and evaluate behaviour theories with behaviour change concepts and negotiate their applicability to the area of investigation.*

4. To attempt to affect change in people's everyday cooking behaviour with design through the results of this investigation.

*After the extensive research phase, the final aim is to see how the results can be used by design for enabling one with positive cooking behaviour.*

## 1.4. RESEARCH QUESTIONS

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To guide the structure of this thesis as well as the research process, I will attempt to answer these research questions:

1. What is the definition of cooking?
2. How does cooking relate to wellbeing?
3. What is cooking behaviour?
4. What is the status of cooking in Finnish homes at the moment?
5. How and where can design affect the everyday cooking behaviour positively?

They will also hopefully provide me answers to my assumptions and also bring me to relevant information to achieve my objectives. As seen, user studies are focal to this research, to be compared and critically analysed against existing material. Involving myself on the user level will help to sensitise me and them to the topic, for them to share more and for me to tune in.

My design perspective would also act as a lens to process these information in a way that they will have relevance for use in design. Nonetheless, I should keep myself open and receptive of the information to truly get a good holistic understanding of behaviour than just from/for the design sense. Only then will I know for sure and decide which is the appropriate way to deal with cooking behaviour through design.

To answer these questions, we shall run through the methodology that will provide fodder for the investigation.







## 2.1. PROCESS

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The methodology for this thesis takes a very traditional and simplistic approach of literature reviews and in-depth interviews. The only variation, as mentioned in the beginning, was perhaps to use different types of literature to act as junctions for filtering, organising and synthesising information from and with the interviews.

As with a design process where there is a refinement stage for the concepts, with this design research, the literature act as the tool for refining the findings towards key concepts and themes that can be use to guide, stimulate and inspire the design process at the concept stages.



## **2.2. LITERATURE REVIEW**

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### **2.2.1. GENERAL BACKGROUND LITERATURE**

Due to the wide field of areas cooking and food crosses into, there were many topics to investigate quickly and briefly to understand where the current discussions lay and what the current situation is like. This would also help with the framing of the topic and the thesis scope. I initially took a projected approach, looking at topics about the future of food and even keeping a keen eye on the kitchen context, thinking that could help with narrowing the scope. When I realised cooking behaviour was actually what I should be looking at, I had to open up my search to other sources and focus more on the following topics, of course each with varying depths:

- Food movement
- Cooking and the everyday life
- Food and culture
- Home cooking
- Cooking trends
- Wellbeing (and food)

### **2.2.2 COOKING BEHAVIOUR LITERATURE**

Surveys, reports and papers provided the richest information regarding this area. It firstly gave me a preview to the existing studies done in the area of cooking and provided reference resources to tap on and explore further. It also provided me with some statistics and cultural and contextual insights into the Finnish population with regards to their eating patterns, of which cooking was also investigated.

### **2.2.3 BEHAVIOUR THEORIES**

To understand how to tackle the concept of behaviour change, I felt it was crucial to first and foremost comprehend the key concepts of behaviour and how it comes about. As there are so many variations of behaviour theories, depending on what you are looking at, I decided to just start from the most basic and initial of theories to have some foundation before proceeding.

As will be explained further in the behaviour chapter, drawing out the key concepts will provide the filters for the first level of analysis with the interview findings.

### **2.2.4. CULTURE THEORIES**

It was inevitable to confront the basics of culture as well when dealing with a topic on cooking and food/cuisine. This also contributed to understanding behaviour of which culture is deeply entrenched within. Investigating culture theories also introduced one into the field of anthropological and ethnographic approaches which ties in appropriately to my methodology of gathering participant information.

### **2.2.5. BEHAVIOUR CHANGE LITERATURE**

Finally after digesting behaviour and culture theories, we can now synthesise the concepts against those proposed by proponents of behaviour change models and critically evaluate their relevance or perceived effectiveness with regards to cooking behaviour. The residual results from the evaluation would then provide the filters for the second level of analysis with the information extracted from the first analysis.

### **2.2.6. FOOD DESIGN LITERATURE**

Lastly, to bring all things to light in the design sense, we want to acknowledge works in the food design arena and use it as a reference point for where my research could contribute. This is where I exert my own design perspective in this field, commenting on current approaches and suggesting how my approach and findings depart or converge, and critically envision the allowance for future work.

## 2.3 IN-DEPTH INTERVIEWS

### 2.3.1. ETHNOGRAPHIC APPROACH

Although information from surveys and reports provided some in-depth data on the Finnish food culture, there were still some questions surrounding the rationale behind some of the results. Furthermore, as a designer, I have always taken a very user centric and inspired approach to understand a context and situation better. It was therefore most fitting to adopt an ethnographic approach to get close to the participants and their cooking behaviour. As anthropologist LeVine would say, 'what is a mere background parameter for the survey researcher could become a topic of revealing cultural inquiry for the ethnographer.' (LeVine, 1984, p. 71.).

In ethnography, the researcher recognises that a person may evaluate a situation based on certain contexts, which embody a meaning for him/her, and the meaning thus governs their response. Although 'this contextual understanding is automatic for [the person], it requires intensive investigation by the ethnographer seeking to attain that understanding and to describe it in a form accessible to others.' (Ibid., p. 73.) With the interviews, although it may not equal to a 'thick description' (Geertz, 1973), the questions are focussed on topics that surround cooking to build a construct of a person's cooking and cooking related experiences. These questions can be

considered holistic as they draw acutely from results of previously conducted studies that are commendably extensive even if many of them are statistical in nature.

### 2.3.2. EMPATHIC DESIGN

Ethnography is also not something new in design, where empathic design research employs ethnographic approaches 'to make sense of how products enter our minds in reflective terms' by understanding 'how people themselves experience them' (Koskinen et al., 2003, p. 49.). In the empathic design approach, the goal in seeing the world from the user's point of view is usually to search for a concept. The proposed "Designer's radar" (Figure 1), which is a visualisation of the methods employed by designers to study users, places empathic design research in cell 9, while what I am attempting to do would be placed in cell 7.

Nonetheless, empathy is still very much involved in my process as I approach the users on a personal and direct level through interviewing and observation. If cell 9 is the desired goal, cell 7 puts one in good stead especially when dealing with the complexity of current behaviour and attempting behaviour change through design. This means that further research and empathic immersion would be required beyond this study, to attain a design destination.

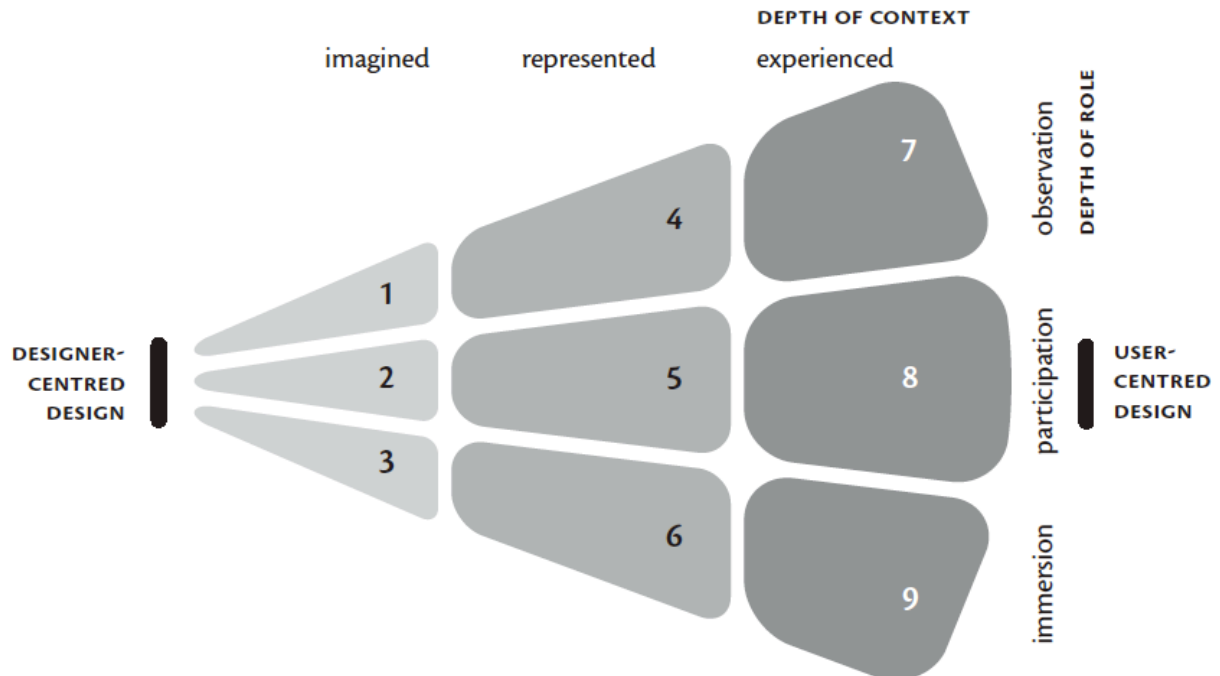


Figure 1: The designer's radar of design research methods. (Ibid., p. 45.)

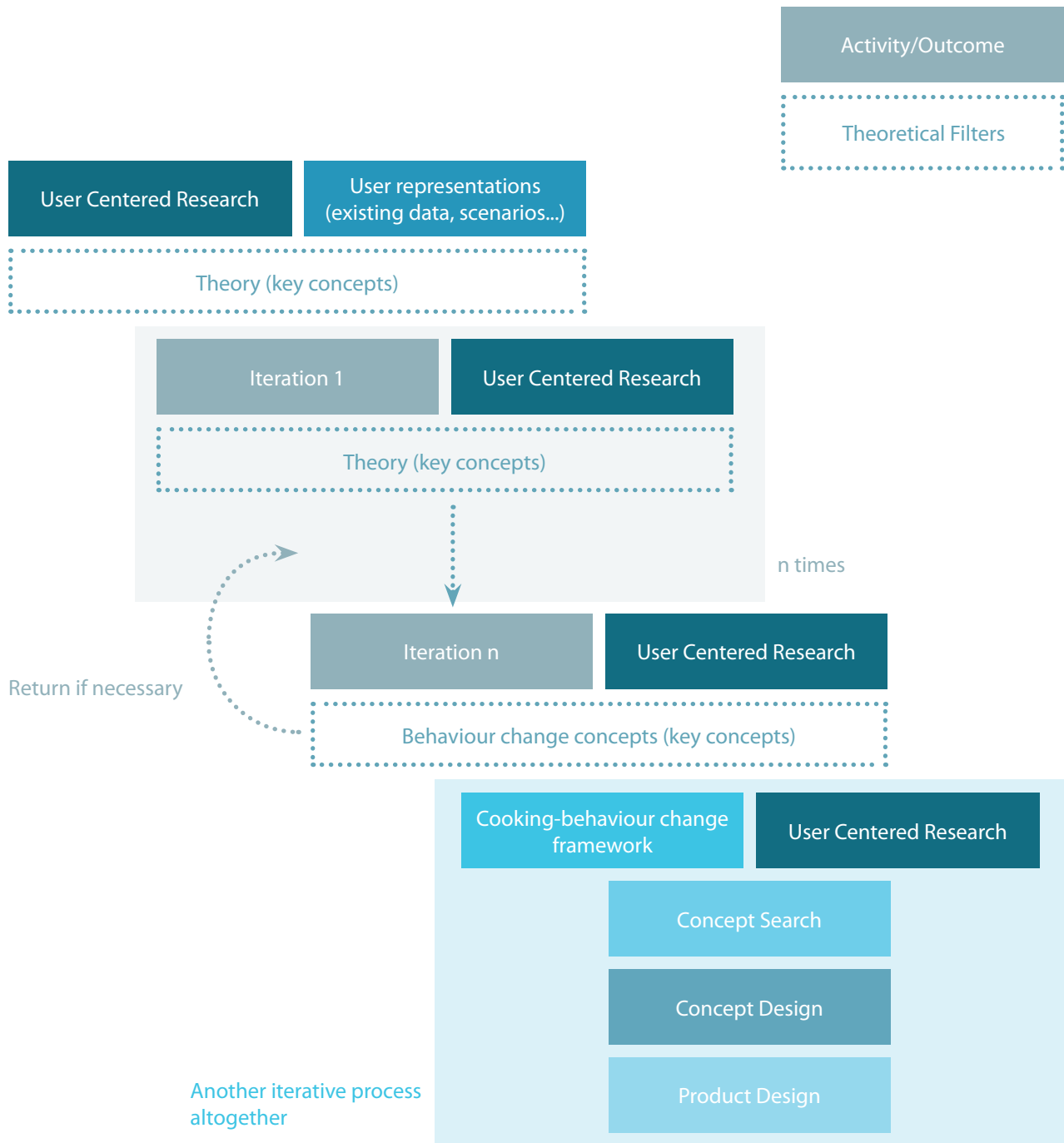


Figure 2: My design research analysis iteration process, integrated into a typical design process

### 2.3.3. ITERATIVE DESIGN-RESEARCH ANALYSIS PROCESS

However, there will be a series of designerly interpretations with existing data to be able to reach cell 9. These steps could perhaps be understood as a cycle of design research analysis iterations; where we take existing data, combine it with empathic research and conduct stages of iterations with broad to specific theories and interpretation, to narrow it all down towards a framework for designing for cooking (and eating) behaviour change. The diagram on the left should help to make this iterative process appear clearer.

When this ultimate framework is reached, one would hope that the entry points for change would be identifiable for the concept design process to ensue. Unfortunately, this would be a hypothesis left unanswered for now.

My focus is thus to look for behaviour cues in the interviews, both conscious and subconscious ones, which would eventually help me to have a glimpse of where the entry points for behaviour change lie. Being such a culturally linked topic as well, interviews would also allow me to verify what the informants say on the spot and spontaneously ask further questions to get a clearer picture of the context of their responses. Although the in-depth interviews are not a full immersion as suggested by cell 9, where the researcher actually puts him/herself in the role of the user; the immersion into experiencing the context will help to sensitise myself to the informants' stories and perceive the crucial triggers that might promote and extend cooking behaviour.

With this approach, it also means the activity itself could be questioned and modified. Furthermore, due to the seemingly chronological nature of behaviour, there is a possibility to design for different stages in life where the activity occurs than for example the moment where people already know how to cook. But let us see where this exploration brings us.

## 2.4. ITERATIVE ANALYSIS WITH THEORIES

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With reference to figure 2, in this thesis, I have jumped from 'Iteration 1' straight to dealing with the 'Behaviour change concepts' to forcefully experience and demonstrate the analysis process. The express procedure is to also give allowance to critique the existing work surrounding cooking behaviour in the field of design and how cooking behaviour change can factor into the scene.

This express route shall be divided into two layers:

First analysis with behaviour and culture theories – to understand what affects behaviour and to use key concepts of the theories to act as filters to extract the relevant information from the interview findings with regards to cooking behaviour.

Second analysis with behaviour change concepts – to see if the key concepts from these models align with the extracted information from the first level of analysis. If they do, can we narrow the framework of behaviour change more specifically towards cooking behaviour? If they do not, what are the critical points to re-investigate and how can I exercise my own insight and design perspective to suggest modifications or further iterations?

With the iterative approach as a guide, we should not hesitate to begin the investigation even if the end does not seem so vivid yet!

## 2.5. DESIGN PERSPECTIVE

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After this rigorous process, I would like to be able to link back to the design world with the results of this thesis. I am hoping the results would be a cumulation of research surrounding cooking behaviour that design can reference when designing for cooking behaviour.

I will also conclude with how I intend to use this experience and results to contribute to this food and cooking area with design.







### 3.1. INTRODUCTION

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To truly be informed about the topic on cooking, I had to start somewhere, hitting key words on the Internet, or asking around verbally, hopefully finding a good foothold to start with. With cooking seemingly a natural part of our lives, whether actively or not, can we really say we know what it means? Can the meaning reveal the role it could or should play in our lives? And what is the complexity of the ecosystem this activity exists in?

Of course design has been very involved in this area already, improving the ergonomics, function and aesthetics of the tools, equipment and space. Furthermore, changes in technology have also had its hand in affecting behaviour especially with the advent of appliances like the freezer and the microwave oven. However to truly say that design has been intentionally used to change cooking behaviour, such evidence has been hard to find. Driven by my hunch that the clues to cooking behaviour are not so much in the physical aspect of objects and spaces, I had to look elsewhere to really grasp what cooking is and how cooking behaviour comes about.

It was in the behavioural sciences that I found the richest source of information, with studies conducted to understand the topic of cooking. However, again, cooking behaviour itself is but a growing study that is gaining some momentum. Investigation into cooking in everyday life is gaining some momentum, especially in the food movement scene. Reviewing the state of our cultures' eating and cooking patterns is gaining momentum, but under sporadic studies since it is usually quite extensive. These are the issues we will review and discuss in this chapter to acquire a wider discernment of how complex a topic like cooking behaviour is. The information covered in this chapter will also be crucial by helping to formulate the questions for the in-depth interviews by highlighting the areas to direct the questions towards.

We will first run through definitions of cooking and how cooking skills relates to cooking behaviour. We will further explore my assumption of the decline in cooking behaviour by reviewing some deskilling arguments. Then we will delve into the area of cooking behaviour we are more keen at investigating and affecting, which is cooking in the everyday life. After all that, we should be able to draw from existing information the factors that seem to affect cooking behaviour and what effect that can have on our lives. It is at this point we bring in other discussions surrounding this concern especially seen within the food movements and from food activists. Through that process we will finally come to the relationship between cooking behaviour and wellbeing and try to sum this mass up into bite size

digestible pieces.

At this point I acknowledge that to suggest that positive cooking behaviour can improve wellbeing can provoke a large discussion. It also borders on one's moral high ground as well as evolving contexts regarding such subjective elements like culture and wellbeing. Nonetheless, we cannot stay stagnant when dealing with such issues, so here is my attempt.



## 3.2. A REVIEW OF COOKING BEHAVIOUR

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### 3.2.1. DEFINITION OF COOKING

In Frances Short's (2006) extensive exploration into the realm of cooking, her research tackled the often taken for granted meaning of cooking. From her study of several groups of people and other accumulated resources, she notices how the idea of cooking varies across three general meanings :

1. Cooking as the application of heat to prepare food for eating – found in most dictionaries
2. Cooking as the preparation of food from scratch, namely from fresh and raw ingredients – a position taken by many food writers.
3. Cooking as a task of making and providing food, a household activity – identified by Anne Murcott a sociologist.

Additionally and not as easily defined, cooking is also seen to mean something proper, complex and embodying some higher value. This meaning may surface when someone tries to explain that they do not really cook but when they do, it could be their signature dish like Carbonara, where we realise it is made of a sauce mix and also raw ingredients.

These meanings sometimes came up all at once when her respondents explained how cooking is involved in their life. Which goes to show how the meaning of cooking for individuals varies from situation to situation.

As convenience and pre-prepared foods creep into our lives, the definition of cooking is even more obscured. Short continues on about the plastic meaning of cooking, "if 'to cook' has no precise or definite meaning, then neither do phrases that refer to levels of pre-preparation, such as ready-made, convenience or from scratch." (Ibid., p. 28.)

With this in mind, the manifold understandings of cooking should keep us aware of the varying responses and its entailed meanings respondents might express. It would also demand some flexibility within the interview to coax the stories that can shape the contexts of these answers better.

It is also at this point we acknowledge how diverse people's regard of pre-prepared food will pose a big challenge in this study. We cannot ignore the inclusion of these foods with regards to cooking, but we cannot fully generalise them either. From dried pasta that needs to be cooked in boiling water to food in aluminium trays that just require heating up in the oven, the necessity probably lies more in knowing how to identify their compositions and how to handle them as a food option.

The concept of food usage has been used as a differentiation tool in some studies to identify nutritional gatekeepers . We will go into this aspect of nutrition in relation to well-being later on. It was interesting to note how the above study used the approach of understanding different types of cooks to determine the qualities that could separate good cooks from those who are not as effective in modifying the taste choices and eating patterns of their family. In this manner, this thesis differs by looking at the up taking of cooking before one develops a consistent cooking behaviour. Nonetheless, we still need to look at cooking as an activity of a cook, and to discern the skills and experiences that support this activity.

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### 3.2.2. THE COOK AND HIS/HER SKILLS

What does it mean to be able to cook or to be a cook?

“Cooks are ‘gods on earth’. Professional, folkloric, prehistoric or domestic, ‘they are nurturers, sharers and minders...’ They are the practitioners, creators, observers and thinkers. They are the food-getters, distributors and story-tellers.”

- Short (2006, p. 69.) interpreting Symons (1998)

‘In the Norwegian food discourse the domestic cook is described as a scientist, an artist, an expert, a perfectionist, a patriot, a protector of nature, a politician, a gourmet, a good mother, a good wife and a domestic mistress. This makes daily cooking to something more than routine housework, it is also a significant part of self presentation and identity formation.’

- Bugge (2003)

It is easy to see, that a cook may go beyond the simple idea of a person who just cooks. In Short’s (2006) study, she was not able to ‘view them as a collective of cooks, working within a clearly identifiable craft with set skills, rationales and standards.’ (Ibid., p. 74.) Depending on who they are cooking for, what they are cooking, which occasion it is for and other alternating factors, they exercise different skills to reach that edible outcome.

Thus enters the whole debate on cooking skills as a measure of good cooks and the ability to cook. Short explains these arguments as a combination of different layers of topics:

- What skills are employed when one endeavours to cook – what are cooking skills?
- What do deskilling arguments refer to when they suggest the decline of cooking?
- How do these notions of skill contrast from the measures employed by policies and campaigns to revitalise cooking?

It is through the exploration of these topics that I find some answers to my assumption about the decline of cooking behaviour and cooking skills and how multilayered the situation is. The purpose in discussing this is to also hopefully expose the characteristics of behaviour reflected

in the different types of skills employed, which will be useful for further investigation.

Apart from the technical and practical skills of cooking or the ‘task-centred perspective’ (Ibid., p. 61.) that is commonly observed and most discussed by food writers, Short and other authors have observed that there are other skills that surface such as ‘perceptual, conceptual, logistical and emotional’ (Ibid., p. 55.) skills, where the grey areas of hard to express explanations or ‘tacit skills’ also fall under.

“Singleton points out that all practical tasks require a combination of mechanical abilities, academic knowledge and ‘tacit’ perceptual, conceptual and planning skills. It is tacit skills he says, that are used to visualise the process of a task, plan and design it, and provide the confidence to carry it out. Both Wellens and Singleton also point out that terms such as ‘skilled’, ‘unskilled’ and ‘skillful’ are rarely linked to any actual, detailed appraisal of skills or skill levels but are used in a very narrow way relating solely to the mechanical aspect of a practical task.”

- Short (2003) on Singleton (1978) and Wellens (1974)

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### 3.2.3. ATTRIBUTES OF COOKING SENSIBILITY

In a consolidated diagram, I have tried to summarise the discussed aspects into Figure 3. The boxes are not to be interpreted by scale, but rather how they bridge over one another, depicting how one attribute might influence or contribute to another. Instead of using the word 'skills', which also seems more technical and knowledge based, I have decided to use the term 'cooking sensibility' to include other tacit and personality based characteristics or attributes that are also necessary to cook well, or, to be a 'sensible cook' with both the skills and soft qualities to deal with the activity. Furthermore, the word 'sensible' also lends a positive connotation towards making right food choices and decisions based on the situation.

With the attributes shown in Figure 3, Short tries to portray that the act of cooking is beyond that of a 'technical' or 'manual' activity (Ibid., p. 52.) (for example 'Mechanical Abilities', 'Perceptual' and 'Logistical' attributes without a tacit element) (see also 'Dealings with cooking' p. 27.). The skills are also not as neat and separate as seen in Figure 3 but can overlap depending on the situation. For example having a good foundation in perceptual skills might enable one to exercise their conceptual skills more easily. Good logistical skills can also help with managing emotions like when one is whipping out a dinner party while being under total control of the situation. Furthermore, to cook for the family always requires a bit of everything, to cook according to different schedules, tastes and preferences. As we do so, we may find ourselves also using tacit skills like our senses of sight, sound, smell, taste and touch to judge how to deal with the cooking situation (Ibid., p. 55.).

Short goes on to say that 'understanding or defining cooking skills as a set of techniques is not wrong: it just cannot provide the same depth of insight into people's cooking practices, food choices and their beliefs about cooking that a more cook-centred, contextualised and detailed approach can.' (Ibid., p. 62.) It is with the help of the diagram as well as the awareness of Short's critique on the differences of approaches that we will try to observe and reflect on these occurrences in the in-depth interviews.

Moreover, there are also the underlying notions of confidence, personality, knowledge that are governed by the knowledge, cultural and social perimeters of the individual. Many of these aspects already hint towards the behavioural direction. We will definitely return to this diagram without the examples in Chapter 7. Furthermore, this serves to highlight to us why the definition for cooking is so complex – because the skills needed spreads across so many areas. It

is these skills that would reveal to us the areas to look out for than to continue in the trend of dealing with cooking in a task-centred perspective.

### 3.2.4. DESKILLING ARGUMENTS

While we detract for a moment to answer the question about deskilling, what we are essentially trying to see is how the current attempts to handle cooking are like. This will suggest and explain why dealing with behaviour could be a worthwhile alternative as a person-centred approach (Ibid., p. 61.), and how we can take all these existing evidence and revelations into that direction.

If we view cooking as a combination of different types of skills, regardless of food usage, a certain degree of these skills would always be utilised. For example, even if one is using a microwave to heat food up, it could be seen to require even greater skill since one cannot see how it is cooking inside, and it is also harder for one to control the process once the food is left inside the microwave oven. Some have also argued in response to the notion of an 'unskilled spectator' (Giard, 1998) that improvements in technology through various tools allows one to be more 'ambitious' and try out more 'complex tasks' (Schwartz Cowan, 1983) ; or in other cases, increase their own demands and expectations of their cooking which can create other types of barriers towards cooking. There has also been evidence of people having the skills to cook well but preferring the convenience food option (Nestle Family Monitor, 2001) .

The issue is therefore not about whether there has been a decline in skills, since that itself is hard to measure against, but to return to the contents of Figure 3 and assess if there is a way to evaluate the more dominant skills exhibited in a certain context and identify the aspects of it that relate to positive cooking behaviour, followed by understanding how they came about.

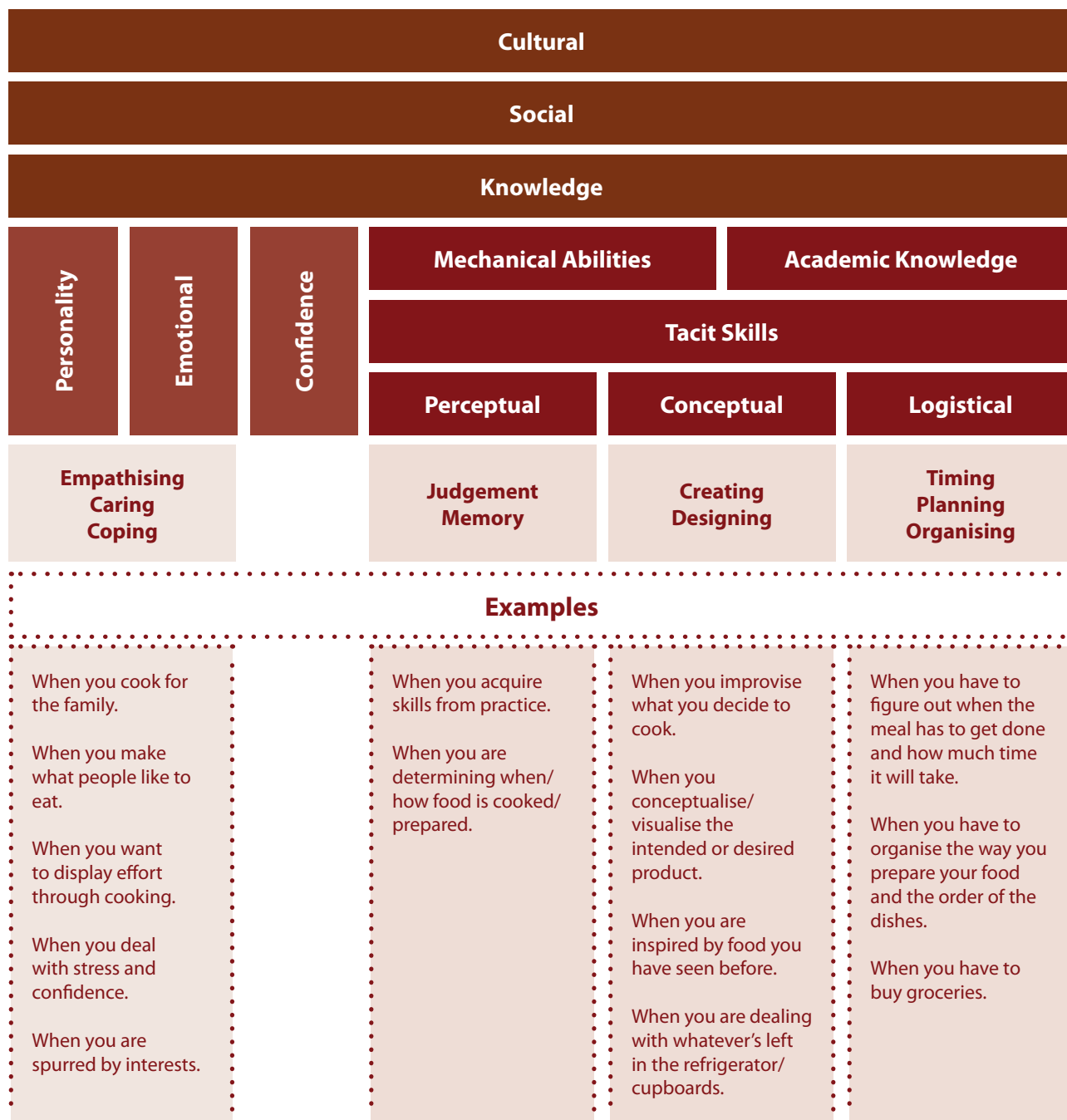


Figure 3: The various attributes of cooking sensibility. (Short, 2006, p. 55-61.)

### 3.3. ON WELL-BEING

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Well-being, subjective well-being, happiness, the various perceptions and personal understandings of this term definitely makes nothing sure and everything possible. It would really depend on the values and beliefs of a person and how they evaluate their lives affectively and cognitively (Diener, 2000). It is with this freedom that I exert my intuitive opinion of well-being relating to cooking through some obvious and evidential dimensions, namely health and nutrition. Perhaps it is closely linked to the definition of cooking from scratch that cooking relates most closely to the notion of health where we are aware of what we put into our bodies and how that might affect us. Apart from this physical dimension, there is also the psychological dimension that depends on one's satisfaction level, social and family ties and other emotionally related faculties.

When we think about the physical aspect of health in relation to cooking, the biggest contender is definitely that of food choices, what we decide to put into our mouths. This decision process indeed engages the various attributes identified in Figure 3 and the result would depend on an individual's aptitude in the different areas. In a way, deskilling arguments thrive due to the big concern over the industrialisation of the food systems. The concern is thus towards how all these and the home cooking situation would affect 'eating habits, diet, health and well-being' (Short, 2006, p. 4). Short cites that many involved in food policy making, health promotion and education are becoming more convinced that cooking skills and knowledge can help with one's nourishment. The lack of it 'is seen as hindering people's ability to prepare and cook fresh, raw food and understand what goes into the ready-prepared food they eat'.

Based on this situation, passionate food advocates like writer, Michael Pollan (2010), opine, "...the last rule in the book, and I think it's one of the most important ones, and I've been hinting at it is cook. It's such an important part of regaining control over our diets, regaining control over this whole food system, which wants very much to cook for you. Wants to do everything. Would like to digest your food too if they could. Would chew it for you. They really want to take over everything having to do with food because they can make a profit doing it. But we can't count on them to do it in a way that contributes to our health or the health of the environment. And finally the only way to get back control is to cook our food ourselves. So, in a way, that's the biggest rule of all, whatever you cook is going to be better than the kind of processed food diet that is on offer." It can even be seen that renown chef Jamie Oliver's The Jamie Oliver Foundation also strives for well-being by highlighting the

impact of learning how to cook and knowing where your food comes from can have on 'our health, happiness and even finances.'

In a study related to gatekeeper research that started from the 1940s, the results revealed that cooks are indeed responsible for nutrition. The study was about investigating methods for identifying influential cooks, where it showed that personality characteristics were found to be the most dominant differentiator and was the biggest link to 'nutrition-related characteristics such as social influence, health inclinations, propensity towards new foods, and learning tendencies.' (Wansink, 2003). This serves as an appropriate indication that a behavioural approach could truly have potential value.

On the flip side, cooking can affect our well-being especially through the process of doing and finally reaching the end result, of hopefully a successful dish. It also displays a person's effort and care for their loved ones and brings people together enhancing one's social life. Some writers have also discussed how home cooking on a deeper level contains the element of nostalgia where it entails romanticised and idealised notions of family and mother, and evokes childhood memories. It also allows one to feel 'real' in our industrialised and fast pace society, and seek comfort in the idea of a 'proper meal', 'family meals' or even the concept of slow cooking. (Short, 2006, Arnould and Price, 2001, Sutton, 2001)

Seeing the varying ways cooking, especially home cooking, can relate to well-being, I think it would be fair to push forward my proposition for a standard of well-being in this thesis. Based on my cultural instincts and a well integrated teaching from my upbringing, I believe that moderation is the key to healthy food choices except perhaps, with regards to fruits and vegetables, more is always beneficial. Therefore home cooking paired with healthy food choices should keep one's health in balance and with good health there is undeniably an effect on mental health as well; as with the mental health the activity itself can provide. With that, we return our focus to understanding home cooking and how it can bring out the better/best in us, for our sake.

### 3.4. DEALINGS WITH COOKING

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In a time and age where for many of us, in developed countries especially, or at least those having access to the internet, we are spoilt with the amount of cooking related information available to us. But for people like myself, living in a food paradise with good affordable food at hand for purchase and consumption, it is easy to simply, eat out or buy take-away. It is not uncommon to find such portrayals in the media, perhaps making it seem most normal and part of life. You just need pay some attention to television programmes that you watch, at least the American ones, for example ‘The Big Bang Theory’ to reflect about my point. Coupled with changing priorities regarding how to spend one’s free time, it is so easy to push home cooking aside. The paradox that has constantly been surfacing is, how is it that with more opportunities and possibilities to learn to cook and to have better material to cook with, people might still choose not to cook? The answer surely lies beyond the numerous current measures taken to encourage and promote cooking. As Short has suggested, it lies in the approach to cooking, where we have to investigate further the concept of cooking as a process than as a result.

“It is our approach to cooking that influences what and how we cook, ‘approach to cooking’ being made up of the attitudes and beliefs about cooking that we share with others, our personal identifications as people who cook and our confidence in cooking and the degree to which we find it an effort arising in part from our tacit, unseen skills and academic knowledge.”

- Frances Short (2006)

It is through the deskilling argument that many of the approaches of current measures are brought to light. We will briefly run through the bigger advocates.

#### 3.4.1. EDUCATION

Having grown up with a home economics system in my school education, it was surprising for me to find that places like Italy does not have such a programme. A chat with a good friend essentially revealed certain qualities why Italy has such a strong food culture, and perhaps why they can do without such a system. Exposure to good food and ingredients and its sources has definitely been a key factor that has fully infiltrated their local culture. Nonetheless, I do believe there can be merits in education, it just makes one wonder why it does not seem to have such a strong

impact.

In Dena Attar’s (1990) critique and investigation of the home economics system in the UK, the biggest flaw lies in the structure of the lesson. Although somewhat agreeing that home economics as a subject can actually benefit students by teaching them ‘skills for living’, such as helping to cope with the domestic aspect of survival or family life in the future, the students she interacted with however did not feel so empowered by the course. Instead, they often take away ‘a sense of failure, a lack of confidence, a belief that there are rules about daily life which they have not managed to learn and a method for organising their domestic lives which they are forever unable to apply.’ (Ibid., p. 17.) This is due to the way the syllabus denotes a certain right and wrong index for evaluating a student’s work in a subject that essentially embodies common sensibilities and situational adaptability.

‘When cookery is put into the rational domain of the classroom, where it exists as a means of meeting carefully ascertained and measured needs, with no room for emotional involvement and the aesthetic dimension coming well behind other considerations, little space is left for any expression of interest and enjoyment.’

- Dena Attar (1990)

In that respect, that is probably why other interventions and measures outside of school seem to thrive better, attending to people’s emotions and cultivating their interest and creativity. Nonetheless, because I have not gone into a deep investigation of the current home economics system, I cannot determine if better efforts have been already made, but the confinements of the context might still be plausible.

#### 3.4.2. FOOD MOVEMENT

With the advent of the Slow Food Movement in the late 1980s, most food movements’ main gripe is against the effects from the industrialisation and commercialisation of the food system. The tactics employed consist mainly of education and exposure and dealing with the food system from where food is grown till it gets onto a person’s plate. The different approaches of different food movements also tend to lean towards a sustainable ecosystem, whilst trying to preserve traditions and biodiversity.



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With their growing strength, awareness has definitely risen, and their influence on policy makers more effectual. The few questions that arise are that if people are immersed in such rich food provision, would they even take time to consider the effort and rational behind it, or are they merely trusting the system? Apart from those who have grown up in a strong food culture, are current measures in other cultures reaching beyond those who are already interested in food?

I am not suggesting that I can answer these questions in this thesis, but as we will see later how culture relates to behaviour, there definitely is something deeper to discover or address than providing just front-end solutions, which can end up being just a trend.

### 3.4.3. MEDIA

Media is a very integral part of our lives in this technological age. Be it from print form to television and sources online, our exposure to them is far reaching. If we try to imagine who the people who review these media are, perhaps you get a better idea of my scepticism towards front-end solutions. Food programmes on television tend to have chefs teach the technical aspects of cooking, they do so by suggesting recipes, while some go further to introduce food sources and the rationale behind certain techniques with the help of the natural aesthetic appeal of food. As other media people (The Washington Post, 2010) have noted, there is a difference between the actual doing from the seeing. They have also cited the importance of confidence and creativity to be able to actually cook, than being equipped with the information and instruction provided by media alone.

Some have suggested that the impact of media especially on one's cooking practices and abilities is hugely indirect (Corner, 1997). What they may do, however, is potentially alter the viewers' food beliefs, food culture and ideology. They could affect how people may regard the production and preparation of food as a search for leisure and artistic lifestyles, instead of an everyday proficiency and necessity (Randall, 1999). Therefore there could be limit to the social cooking approach as well.

Short (2006) also comments how different writers have noticed despite the large availability and accessibility of cooking information found in the media, one may feel pressurised "to care for families but be quick and convenient, to remember tradition but stimulate with something new and interesting, to indulge yet always consider health and to 'have a treat' (Warde, 1997)

whilst watching the purse strings." Others may also feel intimidated by recipes and food photography and images, telling them how the end result of a dish should end up looking. One may thus end up turning to convenience foods or find other alternatives than to do the cooking themselves. That is not to say such media does not succeed in inspiring others, and through such recipes, do help in the area of removing uncertainty and increasing confidence with well thought out step by step guidance and tips. Nonetheless, Short concludes how the effectiveness of recipes does face dispute, which I myself do question as well. With reference to Goody (1978) and Menell (1996), Short speaks of how recipes 'can also be viewed as inflexible constructs of ingredients and methods that halt creativity and spontaneity.'

### 3.4.4. POLICY MAKERS

These people are great advocates of the health and nutritional approach. They try to help people with food choices by coming up with all sorts of labels so that hopefully, people will be more informed through the labels to make the better choice. In the United States, the approach is closely linked to food movements, where they try to promote local produce and fight the food industries' transparency issue with regards to product information (Pollan, 2010). However, it does not seem that many tackle the issue of health from the cooking angle, other than to provide exposure to quality food and cooking know how programmes.

In Tim Lang et al's (1999) survey on cooking and health for health education policy and practice in the United Kingdom, their research had led them to believe in the importance of cooking skills and its relevance to health promotion. However, these skills tend to focus on the technical side of cooking, although they acknowledge that to deal with health through cooking, it should include other food related skills like 'handling techniques, hygiene, shopping and storage knowledge'. Even though they seem to view these aspects of cooking as separate technical skills or information categories, their concern towards how such skills are taught is heartening. They have also tried to identify the phases where the up taking of cooking skills would have the most impact and such data and statistics can give clues to areas that require further investigation. It is the appreciation of such data that will lead me to find the closest Finnish equivalent of such a survey to gain insight into the selected context and its cooking and eating situation.

#### **3.4.5. FOOD DESIGN**

A glance through the book 'Foodmood' (Maffei and Parini, 2010) gives a good introduction and catalogue of contributors to this growing area of design. However, those that deal with the subject of cooking tend to play with the way food is handled, presented, made and eaten, while others provide commentary and provoke reflection on the themes of slow food, supply, consumption, culture and social interaction. Only in the category 'foodexperience' are culture, social interaction and education addressed on a deeper level, but still on a very technical, results based approach, such as social cooking and eating events and spaces, food supply and markets, cooking classes and demonstrations. Although there are strong results just by exposing people to better food, but whether it impacts cooking behaviour in a lasting way is hard to perceive.

### **3.5. TOWARDS COOKING BEHAVIOUR**

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Seeing all these, it is with greater conviction that I follow my intuitive and also now, justified cause of exploring cooking behaviour to see where design can have a greater impact there to improve people's well-being. Furthermore, the constant push for cooking approaches to address creativity is definitely something as designers, we feel inclined to investigate and contribute to. Hopefully, even if we still choose to eat out more at the end of the day, having a solid cooking foundation can essentially help you with the food choices in that area.

Nonetheless, to ascertain if these findings apply to the context of Finland, the in-depth interviews will act as a good probe into this culturally sensitive topic.







4.1. WHY FINLAND?

One cannot deny that in this thesis, location is a big concern. However it is a privilege to be in this current location where Finland is regarded as a developed country with an egalitarian society and generally having a higher standard of living. Helsinki has also been recently regarded as one of the top ten most liveable cities in the world (The Economist, 2011) based on rankings across factors of ‘stability, health care, culture and environment, education and infrastructure.’ In an earlier study (Newsweek, 2010) based on factors such as ‘health, education, economy, and politics’, Finland emerged as the number one ranked “World’s Best Country”, scoring the highest marks in education as well. When we think about the kind of societies we are heading towards in the future, a stable, impartial and educated one, Finland is a fitting country to analyse as a case study.

4.1.1. EARLIER STUDIES

Fundamental to this thesis and as a precedent to the qualitative contextual studies, an extensive survey (Kjærnes et al, 2002) into the eating habits of Nordic countries conducted in 2001 was used as a major reference. The information helped me to align myself with the food culture of Finland and also helped me to select a suitable demographic group to conduct interviews with. Having done all the background studies, this survey was very handy in supporting some of the earlier findings, and also showing me areas where further in-depth investigation could reap more answers to understand why certain results were as such.

As a support to Kjærnes et al report, an even more local study conducted by Laaksonen (2002) was also sourced from. Although dealing more so with food choices than cooking, the quantitative study offers insights into the

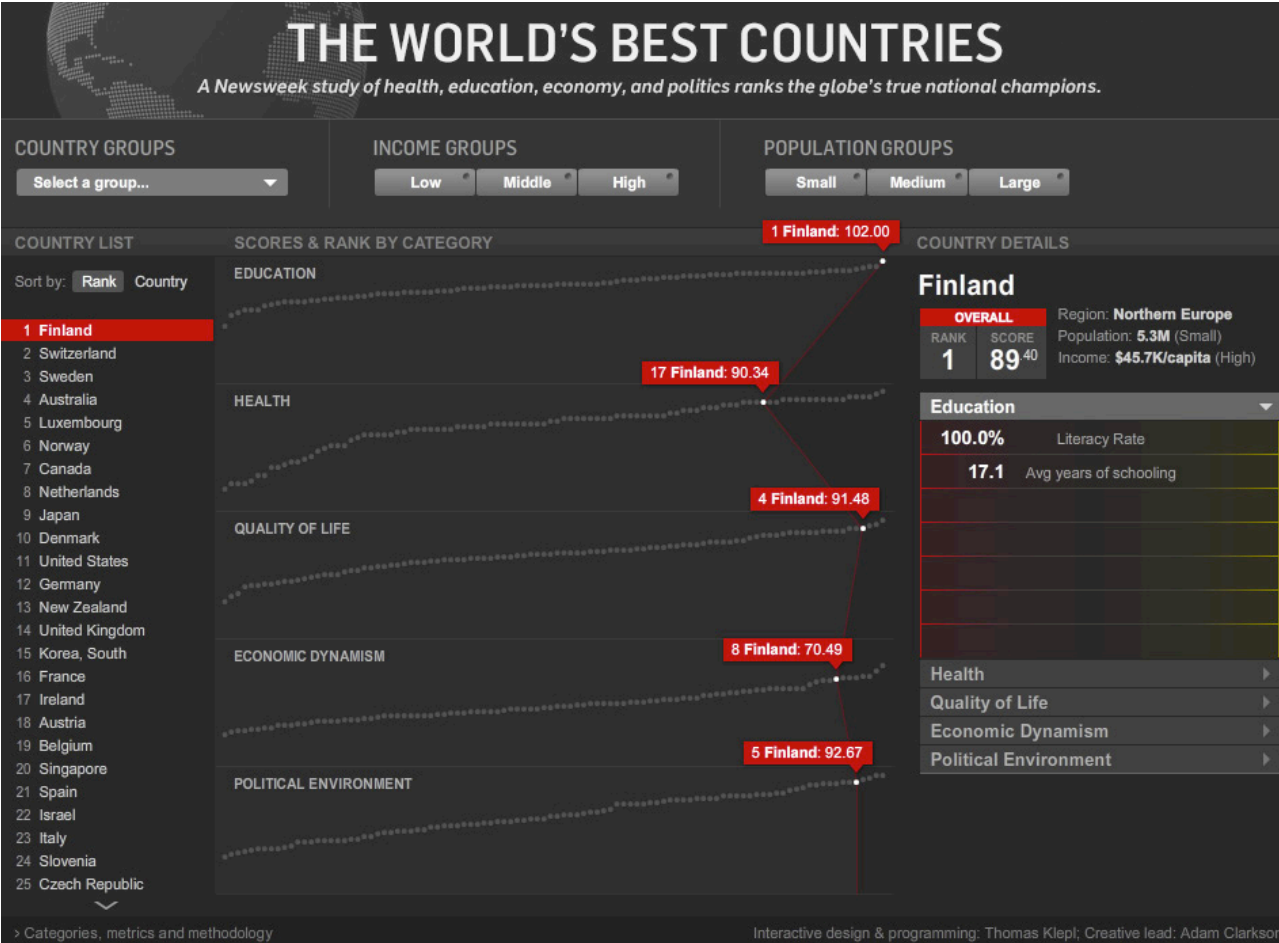


Figure 4: Finland’s score in Newsweek’s 2010 study.

Taken from <http://www.economist.com/node/21528162> <http://www.thedailybeast.com/newsweek/2010/08/15/interactive-infographic-of-the-worlds-best-countries.html>

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different variables that affect how people shop for food, their cooking and eating preferences as well as some of their value systems. Some of these data we will only refer to much later on where relevant. To understand the findings from the Nordic report, we will first understand briefly the approach of the report before going into the concept of a 'proper meal'. From there, it will be easier to see how all this links to cooking as well and therefore highlighting only the findings relevant to this aspect.

Part of Kjærnes et al report was an investigation into the meal as a social institution, and if it is on a decline. Other studies have shown that family meals do play an important role in 'maintaining the cohesiveness of the family unit.' (Lotte Holm, 2001) Although different from deskilling arguments, the meal approach reveals how eating is turning into a lone activity that lacks social meaning, being a disengaged and impersonal activity. Other studies also lament how eating is now a shorter duration, taking an average of more than 10 minutes, and usually undertaken with other activities happening simultaneously. For me, this could offer contextual and cultural clues towards Finnish cooking behaviour.

The intention of the Nordic report was therefore 'to use food and eating habits as a window on everyday life and an indicator of current cultural aspects of modern life.' (Mäkelä, 2001) To do that, the researchers have tried to investigate and illustrate the composition and configuration of the varying types of meals. They have thus used the construct of a 'proper meal', with a focus on hot eating events, to gather data addressing the social and grazing issue of eating patterns. We shall not go too much into detail how the construct was made, but in summary, the Finnish 'proper meal' consists of usually a centre, two staples, a side dish of vegetables and optional trimmings. A Mäkelä's (1996) qualitative study has also suggested that Finnish women regarded 'proper meals' as a combination of hot food, salad and company. With that, we shall dive straight into the various dimensions of a 'proper meal', where cooking information will become more obvious.

Food dimension – a 'proper meal' should be made up of certain foods and dishes. This indicates the day and occasion of the meal.

Family dimension – a 'proper meal' should be eaten as a family or part thereof. Some have suggested that the couple is a crucial factor for this, while others note that children is also a factor.

Cooking dimension – this refers to how the 'proper meal' was prepared and who prepared it. It suggests that food is

prepared 'properly', such as from scratch and by a member of the family, who is often the mother.

Health dimension – this means that the foods that make up the meal should be healthy. Some have gone so far as to suggest that if there is no family, there is no 'proper meal' and thus no healthy meal. However, health to mean nutrition or social well-being is contested.

Based on these dimensions, I have also mapped out the dimensions that affect the 'proper meal' (Figure 5) that were stated in the report. If the cooking and health dimensions are part of the 'proper meal', the factors that affect the 'proper meal' would also have an impact on cooking behaviour and well-being. I have thus filtered out the most relevant points of the Finnish data to give an overview into the current eating and cooking context. From there, we can also observe better the areas that led me to the selection of the demographic group for the in-depth interviews.

From Figure 5, we can see that the dimensions that affect the 'proper meal', especially the demographic and cultural variables, possess behavioural influences. As we will see shortly, gender and household type especially play a crucial role in affecting the 'proper meal' particularly through the family relationship. We can also see that despite the egalitarian status of Finland, there are still gender differences in the roles of men and women. However, I believe there is new information to discover since these data were from ten years ago.

Although table 1 was not meant to reflect quantitative accuracy, but we can gather that the number of results for each variable could be due to the way the survey was oriented; towards drawing out the social aspect of peoples' lives with regards to their meals. Nonetheless, I have highlighted the findings that I would like to explore further to understand their occurrence. Furthermore, if we are trying to change cooking behaviour, it is probably better to focus on a younger demographic group that has more potential to affect change. I have also streamlined the highlighted findings to relate to the chosen demographic group which I will explain more about shortly.

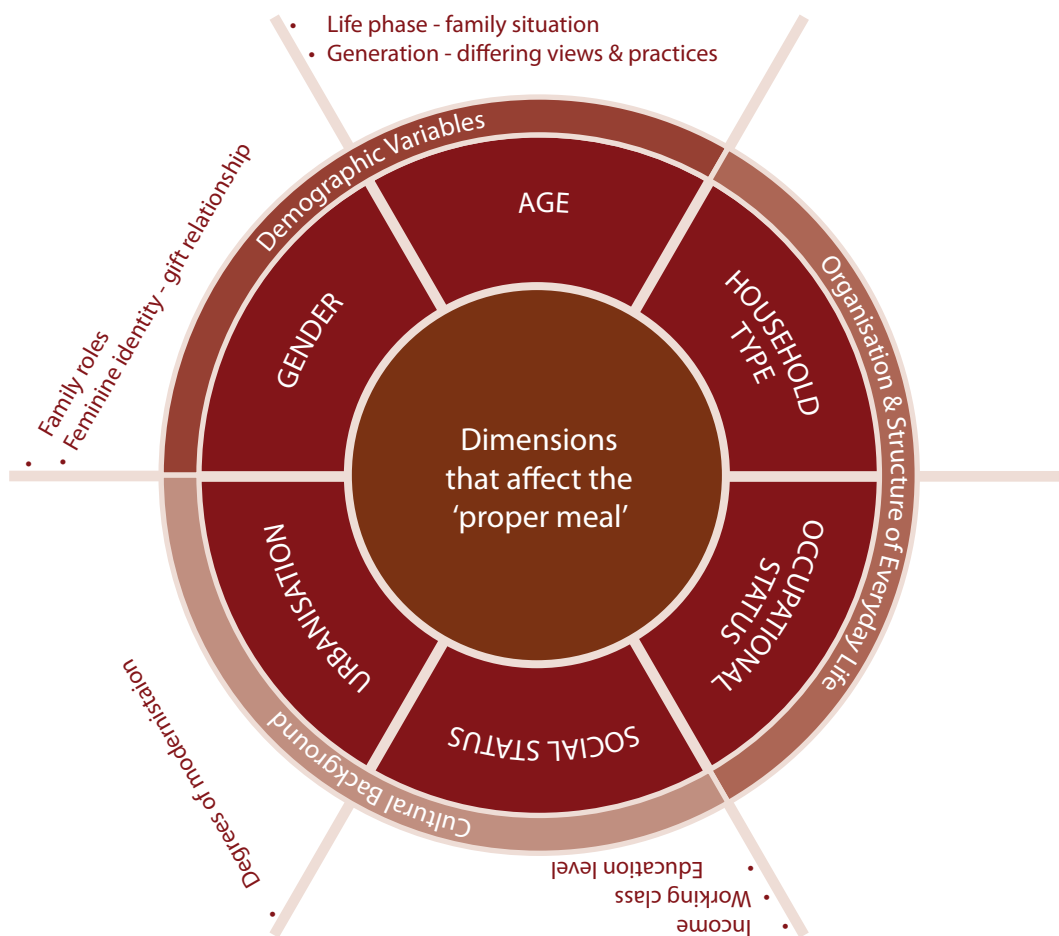


Figure 5: Dimensions that affect the 'proper meal'

■	Amongst the Nordic countries, men in Finland cooked the least.
■	People in the 15-29/30-44 age range tend to show less gender difference in cooking roles.
■	More women than men have proper meals.
■	Women tend to cook regardless of interest, but men cook mainly because of interest
■ ■	Couples without children, women tend to cook more.
■ ■	Couples with children, there seems to be a slight spread out of gender roles regarding cooking.
■ ■	Regarding those who eat a lot of hot food, Finland scored the lowest for those who did their own cooking.
■ ■	Finland had the highest score for those who had their meals made by their mother.
■ ■ ■	People with higher education reflected the highest difference in cooking roles between men and women.
■ ■ ■	There is an increase in the eating of 'proper meals' amongst men who were older, better educated and/or economically active and who lived in families.
■ ■	Those who had family or lived with someone had more proper dinners/hot eating events. Those within the 25-44 age range, as well as those with children reflected such results too.
■	There were slightly more family meals on Sunday.
■	Employment had an effect on eating hours and place of eating.
■ ■	Employment & status variable had slight impact on eating variations.
■ ■	Those occupationally active and had higher education tend to have less eating events at home. Family meals are less common amongst urban and higher professional, white collar households.
■	Those who were middle class white-collar workers tend to have less proper dinners.
■	People in Northern Finland had more hot meals than those in Southern Finland.

Table 1: Finnish findings relating to cooking and eating reflected against dimensions that affect the 'proper meal'.

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#### 4.1.2. DEMOGRAPHICS FOR INTERVIEW

Although there were a few interesting demographics to investigate, somehow I naturally focussed on the groups with more positive results regarding proper meals. Perhaps it was in hope that the studies would reveal why and how that became so, and if we can draw any behavioural traits from that, or adaptive strategies they have taken. Despite that, I tried to recruit participants in a more open way, by telling them the interview was regarding eating and cooking in general and food enthusiasts or non-enthusiasts could participate. This was to allow myself to be open to new results apart from what the data has revealed.

As we look towards a modern society, it was also consistent to select the demographic with higher education and employment to see their current status in dealing with cooking. However, I did not explicitly state such a requirement, since most Finnish in the Helsinki area generally possess good academic qualifications. Furthermore, the call for participation advertisement was posted in English, so that easily narrowed the potential participants and their perceived qualifications.

From the selected data seen earlier, life phase seemed to affect 'proper meals' quite a lot especially when one has a family and the presence of children. Since the role of cooking seems more spread out in such a scenario, I found it apt to target this group. To be able to see the apparent changes due to this life phase transition, I therefore decided to choose couples who just had their first baby so they could talk about the before and after effect of this change in their life with a fresher memory. The second category with a slight variation of baby's age was chosen because that was the stage when the child starts eating more normal solid food, and therefore that transition could also offer some insight into the couple's adaptive strategies.

To keep the cultural context specific and focussed, I did a narrow selection of only Finnish – Finnish couples. This would also prevent having to compare different upbringing and cultural backgrounds that could affect the findings especially with such a small sample size.

Similar to how 'proper meals' have an everyday characteristic to relate to the health dimension, we will also be looking at the aspect of everyday cooking. This means looking at the weekdays since meals in the weekend seem a bit more special as seen from the earlier data. Furthermore, dealing with the everyday reveals more about behaviour than the occasional. The meal chosen for investigation is the dinner meal, since most working adults in Finland have their lunch at their workplace due to the strong lunch

system provided there.

Therefore the demographic group chosen for the in-depth interviews are as follows:

a 25-35-year-old Finnish couple (cohabiting or married) who just had their first baby in the recent one year period

OR a 25-35-year-old Finnish couple (cohabiting or married) who has a child that is between 1½ -3 years old (preferably the first child.

I have chosen to interview six couples in total for this qualitative exercise.

## 4.2. IN-DEPTH INTERVIEWS

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### 4.2.1. INTERVIEW FORMAT

In anthropology, ethnographic studies involves not only listening to people's responses, but also goes to the extent of living with the community, where 'he discovers many other regularities of customary behaviour that informants cannot easily explain and which they take for granted as self-evident responses to what is and what ought to be.' (LeVine, 1984, p. 76.) Although I will not be living with the participants at that level, observing the preparation of food to the eating process of a dinner will give me a specific enough encounter with the family's behaviour regarding this activity. The thoroughness of the interview questions as well as my situational prompting would also help to draw out the answers that would tell more about the context, and the participants' thoughts, intentions, expressions and feelings. In this way, the use of language is crucial to these interviews.

The meal and setting also sensitises the participants to the topic and motivate them to talk more about it whilst they are partaking in the activity.

Despite Finnish being the mother tongue of the participants, I am confident of interviewing them in English because the local grasp of the language is surprisingly fluent. The impromptu questions and clarifications I may ask on site based on certain observations would therefore add to the clarity of the ethnographic study.

Apart from the six couples, I did a pilot test with an extra couple, a friend, just so I could fine tune my questions and also adjust to the setting since I have never done a home study with three people before. From there I realised note taking was futile and I relied heavily on my eyes to observe, taking photographs along the way and recording the whole session with a voice recorder so I could transcribe everything after. Knowing that parents are naturally protective around their children, the pilot test also allowed me to get feedback on my positioning and mannerism when conducting such an interview. I was definitely more confident with the conduct and pace of the interview thereafter.

The interview consists of 57-63 questions (Appendix A) covering general topics like childhood influences to favourite cooking tools. The difference in questions is due to the age of the child, and extra questions surrounding the management of the child with regards to eating and cooking. A small jar of home-made biscotti and a shopping voucher was presented as tokens of appreciation after the long interview session.

Time permitting, perhaps it would have been useful to investigate those that did not cook so much to get a deeper dimension into the cooking study.

### 4.2.2. INTERVIEW PROCESS

The interviews took from two and a half to three and a half hours, with the kind accommodation of the couples. Of course the duration was affected by both the communicative level of the couples as well as their interest in the topic. Most of the interview was conducted in the kitchen or the dining area, and I shadowed them a little as they prepared the food.

We arranged for me to come usually around the time they start preparing the food so I could observe that process as well. They were told to make a normal everyday dish and most took around half an hour to an hour to prepare it. If it was longer, it was due to going back and forth taking care of the baby either because the child was sleepy or hungry and also due to my presence and questions.

When interviewing couples together at the same time, the benefit was that one could add on to another's response and at the same time some of them were interested in things they have not heard before their partner mentioned before.

The couples were also generally comfortable with my presence, dining and sharing with me their responses. Perhaps only two husbands were a bit more 'Finnish' in that regard, not talking too much.

Which returns me to the recruitment process. It was difficult in general to get enough interviewees even after advertising and talking to people off the streets. Local friends attribute that to the normal Finnish behaviour of being more conservative and not so open to having strangers in their homes. In that respect, I was very fortunate to get couples who spoke so fluently and shared so extensively despite the interviews taking so long.

Most were also protective over their child, declining showing pictures of the child in my thesis. Which could also explain why finding people to interview was also difficult. But at least, I have gotten my six couples.









## 5.1. INTRODUCTION

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This chapter may seem a little out of place, but is a very crucial chapter in this thesis to sensitise the reader (especially designers) to some understanding of behaviour, which is a concept often taken for granted and attended to on a very intuitive level. Since the research and analysis process also relies heavily on key concepts from theories, it is important to devote some pages to the theories, to help understand the analysis process and also for it to be there for future quick reference as well.

With the idea of cooking being not just an activity but a combination of varying factors, it is all the more necessary to understand how behaviour has a part in bringing all these together and what do they comprise of. This will therefore help to shape the attributes for cooking sensibility which will be fundamental to the iterative process later on.

I therefore urge one to take in this chapter not as a way of identifying what the theories are, but as a way of extracting behavioural information from a theoretical example.

## 5.2. A BRIEF INTRODUCTION INTO 'BEHAVIOUR'

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What is behaviour? (According to the Oxford dictionary)

1. The way in which one acts or conducts oneself, especially towards others:  
'he will vouch for her good behaviour'  
'his insulting behaviour towards me'
2. The way in which an animal or person behaves in response to a particular situation or stimulus:  
'the feeding behaviour of predators'
3. The way in which a machine or natural phenomenon works or functions:  
'the erratic behaviour of the old car'

Based on definition 2., one way of looking at it is that we could infer that cooking behaviour is in response to meal times and the necessity to eat, such as through hunger. However on a less physical but emotional level, the response to being hospitable or to be care giving and nurturing is to cook. In order to understand what cooking means to a person, and how it translates into behaviour, it would be useful to understand some theories of behaviour that can help us identify and understand the findings in the interview.

It is important to note that many theories regarding behaviour have been circulating throughout the years and tend to differ in approach especially among the two axes of individual and environmental factors, and the cognitive and the affective. Here we start off with one widely discussed theory to graze the topic a little.

Essentially, early theories like Constructivism started on the basis of trying to understand how the mind works and how knowledge gets internalised. Further discussions and criticisms that built on from there have recognised other factors that contributed to it, and the more organic and less straight forward way it can happen. The intention of this section is not to debate the strengths of the theories, or even to suggest that one is comprehensive enough be used directly. The intention is rather, to have a starting point of some understanding of behaviour where we can discuss the findings from the interviews using appropriate terms, and organise recurrent as well as emergent themes to some theoretical frameworks of behaviour.

From there, we will hopefully be able to focus better on the more glaring factors affecting cooking behaviour derived from the sample group, and run with those leading threads into the realm of design. We would also be able to become familiar with where to look for more information in the

future and make critical associations with the core concepts of the theories.

I guess my intuition is that although behaviour is affected inexhaustibly by many things, some things affect cooking behaviour more, and that is what we are trying to discover or rediscover and extract from this process!

### 5.3.THE BASICS OF CONSTRUCTIVISM - A DEVELOPMENTAL THEORY ON BEHAVIOUR

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One of the first major psychological investigations that seeks to explain behaviour was fronted by Jean Piaget (1896-1980), a distinguished Swiss psychologist and epistemologist. His constructivist theory was established from an in-depth study of children, where he provided a 'solid framework for understanding children's ways of doing and thinking at different levels of their development' (Ackermann, 2011, p. 3.) . The theories that revolved around Piaget's were the building blocks of the creation of Education and how we could equip children with different types of knowledge. It is no wonder that most of the discourse has mainly been taken up within the educational realm, gaining the affectionate term of 'learning theories'.

Essentially, when one speaks of Constructivism, it refers to the 'ongoing structuring [or] organising [of] processes' (Mahoney, 2003) , namely, that of cognitive processes. It is developmental and adaptive in nature and investigates how we attain the various degrees of maturation and knowledge in our life. In Ackermann's words, 'Developmental theories, in other words, regard cognitive growth as a slow yet steady move away from intuitive towards rational thinking, or from everyday cognition towards scientific reasoning.'

In Sigel and Cocking's (1977) book, that gives an insight into Piaget's theory, the idea of "knowing is commonly referred to as 'cognition'". It is this process of 'knowing' that allows one to adapt to their environment, and the authors imply that 'there is a category of behaviour [they] define as knowing; that knowing is developed – that it comes about over time and through experience; that knowing provides people with the schemes to cope daily with their environment.' (Sigel and Cocking, 1977) , To grasp an overview of the theory, we will briefly run through the fundamentals of the theory, and the criticisms and discussions that have arose from the theory and finally take a glance into the conceptual framework that Piaget has proposed.

#### 5.3.1. FUNDAMENTALS

The methodology behind Constructivism that allowed Piaget to reach his conclusions involved intensive work in Geneva with infants, preschoolers, elementary and secondary school children, where each child was interviewed separately. For example, he would use similar tasks and test them amongst children of different ages. The research grew to involve thousands of children around the world (Ibid., p. 7.). The findings suggested that 'cognitive behaviours and processes can be systematically distinguished' (Ibid., p. 2.). This system refers to the stages

seen in the development of cognition from infancy to adolescence (Ibid., p. 13.).

To understand and appreciate the core concepts of the theory, one has to recognise that it investigates from a genetic psychology angle, which the authors enforce is different from child psychology. "Where child psychology deals with the child for his own sake and does not consider his eventual development into an adult, we tend to use the term 'genetic psychology' to refer to the study of developmental processes that underlie the mental functions studied in general psychology (intelligence)." (Ibid., p. 13, 14.).

We will now quickly run through the key concepts that guide genetic psychological research. These will help with the interpretation of the Piagetian theory (Ibid., p. 14 - 25.):

##### 1. Biological-Experiential Factors

The idea here is that cognitive development is a way of adapting to the world. It starts from the organism's biological nature such as from the beginnings of a baby's reflexes, and proceeds through consistent phases, towards the point where one is capable of abstract and logical reasoning of their experiences.

##### 2. Assimilation and Accommodation

Piaget suggests that cognitive growth proceeds along two important paths, assimilation and accommodation. Assimilation refers to the taking in of information in a way where the cognitive system knows what it is "capable of dealing with at that point in time", similar to how digestion accepts or rejects nutrients based on the body's current condition. "When assimilation of information alters the individual's understanding of events, this alteration is referred to as accommodation." (Ibid., p. 15.) It is here that Piaget also speaks about the notion of 'schema' that refers to how knowledge is learnt through this process (assimilation and accommodation) of organisation or mental construction of information.

##### 3. Constructivism

Constructivism could be simplified to refer to the process of actions, experiences and interactions in which a child assimilates information to form a knowledge base. Construction thus occurs through interactions (actions and reactions) between the child and the object. While interacting with the object/person/event, a reality is constructed of it, which can be referred to as a mental definition. Subsequent interactions with similar objects will be guided by this definition which can span across different

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levels of meaning and interpretation. "The role of actions with objects is central to the Piagetian explanation of how we come to know the world about us." (Ibid., p. 17.)

#### 4. Stages

This simply refers to the systematic display of behaviours where certain groups of behaviours are arranged in sequence, with the presence of one group allowing the entry of the next group. "For Piaget, development means movement from stage to stage resulting in changes both in what one can understand and how one understands." (Ibid., p. 18.)

#### 5. Factors Influencing Development

**Maturation** – This refers to the biological structure of a person, especially with reference to the development of the brain and its functions as well as learning capacity. It also relates to the way the body of the person grows as they get older and therefore are capable of more functions and contact with other experiences. This could align closely with the concept of 'stages'. "But between possibility and actualisation, there must intervene a set of other factors such as exercise, experience and social interaction" (Ibid., p. 18.) where there is space to discuss the influence of culture and external factors.

**Experience** – Experience includes sensory and motor encounters with the physical world and experiences in reasoning. This occurs through interaction and the testing of relationships between objects and/or experiences. The child may go through several steps of deduction and manipulation to discover the properties of the object, especially when the concept of logic has not fully evolved yet. This would relate to the concept of 'constructivism'.

**Action** – From some studies of Iranian children as well as urban and rural children comparisons, Piaget noted that although mental development lagged behind western counterparts, the sequence of stages still proceeded in the same manner. He thus concluded that the environment did exert a substantial impact on the developing individual, and was seen most evidently at ages 4 and 5. Similarly, the consistent presence of the sequential development despite the varying social environments does mean that they do not account for everything.

**Equilibration** – This last factor is what Piaget considered as most important to the organising factor (schema). "Equilibration means that there is a requirement for maturation, experience, and the social environment to be in balance." (Ibid., p. 21.) As each individual approaches each situation with its own cognitive structures, the

new information (if unfamiliar) and the internalised information would be in a state of imbalance where there is a possibility to change existent structures. The assimilation and accommodation of the new information would then illustrate how knowledge can grow through this imbalance. This also explains how the disequilibrium can help to create transition between the stages.

'Logical necessity' and 'cognitive conflict' are two concepts that will help us understand how the transitions occur. Sigel and Cocking explained that logical necessity can be seen from situations where for example, when one is told to put on their socks and then their shoes. There is a natural logic or fixed order to such actions that is somewhat built-in, and it helps the child to pick up these sequences and respond to them appropriately. These situations usually create cognitive conflict, where one cannot do both actions at the same time, and the child then learns to stagger the actions by the 'principle of displacement'. These scenarios again allude to the idea of disequilibrium, and solutions to these problems enable the child to transit from one stage of capability to the other.

Although Piaget agrees that these scenarios happen mostly through social experiences, he believes that social experiences are not the only factors that affect the transition. He suggests that the advent of language can be a medium that allows one to transit from the sensorimotor stage to empirical thinking, where later concepts and conceptual thinking can be furthered. "Thus, the transition between stages can be attributed in part to social demands and in the early years to the advent of language." (Piaget, 1951)

#### 6. Structure

When accommodated information is organised, that can be seen as a structure of knowledge. This structure is like a metaphor that explains the relationships within mental actions or transformations that happen when one is thinking. The example given was that of four year olds, when asked how they got from school to home, they knew how to do so but could not communicate the journey to Piaget. Older children however were able to do so, having developed another type of logic, suggesting that the cognitive structure changes through a variety of mental acts where one experiences thinking and reasoning. Cognitive structures that can be shaped and directed by a person's history are therefore necessary for adaptation to an environment. These structures can vary in form at different points of a person's life, which basically reflects the stages of development. The biological side of this is that one will

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always end up organising one's intellectual processes into new structures when encountering new experiences.

## 7. Operations

An operation can be seen as a unit of logical thinking. When actions get internalised into operations, operations would be able to select the specific mental activities in the future that are necessary to handle such actions. Operations can thus be seen as a general mental coordination towards actions. Understanding this process would allow one to comprehend how thought functions.

Examples for each concept can be found in the book to give a clearer idea of the concepts.

In summary, Piaget was the only psychologist in his time who presented an exhaustive theory of intellectual development that consisted of three crucial elements:

1. A developmental perspective – a belief that intellectual growth is sequential, they can be broken down into stages that reflect the individual's learning capability at that moment.
2. A considerable volume of knowledge detailing the developmental route “of how children acquire information about the physical world, for example number, quantity, time, space”, “the social world, for example, morality, social conventions”, “and logical-mathematical reasoning, for example, classification, hypothetical-deductive reasoning.”
3. An in-depth process that utilised “a clinical method of inquiry which reveals how the child thinks and reasons, rather than just what the child knows.” (Sigel and Cocking, 1977, p. 7.)

“Piaget's system is organised to show how the individual builds upon biological origins while adapting to the world. The emphasis is upon adaptive behaviour, which is distinguished from repetitive behaviour by the slight changes occurring with each new performance. Piaget points out that these changes, however slight they might appear to be, are systematic.” (Ibid., p. 33.)



5.3.2. THE CONCEPTUAL FRAMEWORK

We will not go into the whole explanation of the framework since this investigation is not about the application of such models but to understand the main factors that are considered influential for behaviour development. The points that could be seen as relevant to cooking behaviour will help with the analysis of the interview findings. The concepts highlighted in the previous section should help with the basic comprehension of what Piaget was trying to propose in his theory, what to look out for in the findings and even what to discount.

Other areas we could take note of as brought up by Sigel and Cocking are the elements of medium (mode in which information is transmitted), skill (the form when knowledge is understood) and training (for when things are too complex to understand immediately) (Sigel and Cocking, 1977, p. 5.). Understanding the conditions for cognitive growth was definitely left open by Piaget for deeper and further investigation.

Sidenote:  
However if we were to really take this framework as an example of how a behaviour framework could be used to handle cooking behaviour, perhaps we could attack the different stages of development with activities or cooking related exercises and tools suitable for that level of cognition. Could cooking behaviour then be ingrained in such a manner? Although that would be a very simplified way of cutting and pasting, it does allow room for thought.

5.3.3. CRITICISM

There definitely has been a lot of debate contesting the stage-dependent framework of the theory, however there are supporters on both sides. Those that do criticise the invariant stages suggest reasons such as overlapping responses across age groups and a variety of experiences that would affect the rate and quality of development. Above that, the methodology for studying the children might not be accurate as it would be difficult to get children, those of young ages especially, to express themselves

Cognitive Development Stages		
Stage	Age	Description
Sensorimotor	0 - 2	Reflex base Coordinate reflexes
Preoperational	2 - 6 or 7	Self-oriented Egocentric
Concrete Operational	6 or 7 – 11 or 12	More than 1 view point No abstract problems Considers some outcomes
Formal Operational	11 or 12 and up	Think abstractly Reason theoretically (Not all people reach this stage)

Figure 6: Piaget’s conceptual framework on child development

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completely and coherently. Some propose that the best way to validate this invariant order would be to study the same group of children consistently, over a period of time (longitudinal studies). At that time, 1973, no such studies in this area existed.

The other criticism that is closely related to the stage-dependent characteristic is that the “rate of growth cannot truly be accelerated”. This is where writers question external influences such as teaching and its effect on stage development. (Ibid., p. 32.)

Likewise, the idea that the best environment for cognitive development involves as little pressure as possible casts more interest to the effect of external influences. Piaget’s reasoning was that “each time one teaches a child something he could have discovered for himself, the child is kept from inventing it and consequently from understanding it completely.” (Ibid., p. 20.)

Lastly, two crucial functions that was claimed to be least or even not discussed, language and affect, were seen as the biggest shortcomings of the Piagetian theory. Sigel and Cocking however defended Piaget, noting his view that “affect and cognition are interwoven and hence indissociable” (Piaget, 1973) . Piaget saw the affective system as an ‘energiser’ that can speed up or slow down cognitive development depending on its positive or negative connections. But he highlighted that such would not necessarily change the cognitive structure, “it goes without saying that if the affective stems from an energetic then the cognitive stems from structures” (Ibid., p. 47.) Researchers have acknowledged that theoretical and empirical work is still necessary to cover the affective side.

“The use of Piagetian theory in education should not be interpreted as suggesting that Piaget and his colleagues have all the answers. Rather, it is a system that offers a framework in which to work, assuming that the problems studied are important, relevant, and [...] offer new insights into the complexity of cognitive development. More and continued research and evaluation must go on to test the theory and make necessary modifications.”

– Sigel and Cocking, 1977

#### **5.3.4. WHAT CAN WE EXTRACT FROM HERE?**

Just from this one behaviour related cognitive theory, we can extract many useful information from not only the core

concepts but Piaget’s methodology for his research. The criticisms have also highlighted the importance of both the cognitive and affective sides of development, which we can perhaps relate to as the functional and aesthetic sides of design.

In the simultaneous process of my literature review and interviewing, Piaget’s constructivism has definitely proved to be of great relevance to the findings in my study, which involved couples with very young children. It was not my initial intention to link to this particular theory, but as described earlier, the selected participant group was influenced by earlier survey results.

Other than helping with the analysis of the interview findings, these concepts will also help set up some perimeters with regards to cooking behaviour, based on the scope and depth of this study and the literature explored. This means that the core concepts will be used as filters to sieve out the relevant information regarding cooking behaviour from the findings. It is ambitious hope that further investigation into more relevant theories on human behaviour can create a clearer picture of perhaps a cooking behaviour framework. Such frameworks could definitely be synthesised with design to provide innovative solutions for many of the issues surrounding the food system, particularly from the cooking approach.

One only needs to read a little further to notice how other theories like Vygotsky’s has developed from Piaget’s contributions, and how theories like Activity Theory has developed from Vygotsky’s in a continuous cycle of debate, reflection and further investigation into different facets and areas of behaviour and learning. Because the main focus after this section is to see how with the understanding of behaviour, we can further comprehend behaviour change models, Piaget’s theory is a sufficient introductory overview for now. Perhaps these theories could be referenced for the later stages of iteration in the research analysis process, should they seem appropriate in the context of cooking behaviour.

To help with the preliminary classification and analysis of the interview findings, the key concepts we can distil from Piaget’s constructivism theory that could be relevant to cooking behaviour are:

- Biological
- Construction of knowledge through actions, interactions and experiences
- Assimilation and accommodation

We will refresh on these concepts in the next chapter to show how they help create a guide for analysing the results. These concepts will also help to filter down the findings to the behaviour related ones which we will use to investigate further with behaviour change models. Hopefully at the end of this process, we will be left with some good directions and inspirations for design work to get involved in.

Sidenote:

As of this point, we will speak of Piaget's constructivism loosely, emphasising more on the concepts behind the theory and connecting to other areas that we have recognised to be lacking from the theory.

## 5.4. INTERMEZZO: LEADING UP TO THE CONCEPT OF CULTURE AND ANTHROPOLOGY

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Discussions of how anthropological thinking integrates with cognitive development are definitely not something new. In the past, some assumed that cultures could be classified according to how primitive it was in terms of "levels of mental ability" (Sigel and Cocking, 1977, p. 25.) Now, with majority of the world made up of civilised societies, we will face difficulty supporting such claims.

Sigel and Cocking move on to recognise that culture exercises influence through the spoken language, people's ways of relating to the environment, in the way people use things and much more. Culture thus provides both the expansion and limitation of one's actions and cognitive development. (Ibid., p. 25) Culture exercised through language can affect the style of communication with regards to the person's emotions, disposition and understanding. (Ibid., p. 26.) However, when these expressions of language are limited in a particular population group, this would mean that it would be challenging to determine the extent of the person's expressive capability. This can well relate to criticisms towards Piaget's findings from very young children, and also findings of anthropologists who studied more primitive societies in the past.

What the limitations in language shows us about understanding culture is how the whole environment a person lives in affects their whole being. Nonetheless, cultures can be transported from one place to another, and therefore are not confined to period and location. Its power to affect one's definition of their environment, their role in it and relationships with others thus impacts cognitive development greatly. (Ibid., p. 27.) We can see the influence especially through the concepts of 'experience' and 'structures', where culture, that is socially defined over time, becomes the definition, or 'reality' (Ibid., p. 28.) that the individual aligns towards.

"It might be argued that the individual is not part of the culture, but an expression of the culture. The person and the culture are one" (Ibid., p. 28.) Perhaps we can view the relationship between culture and cognition as an equation:

Culture + Embeddedness = Our belief system

Our belief system = The way our knowledge is organised/  
structured

Therefore, since everyone's assimilated knowledge differs, there can still be individual differences within cultures. That is not to say that our belief system cannot change. As

with Piaget's concept of equilibration, new experiences, such as new cultures, can very well affect our structures, but the degree of it probably depends on the degree of embeddedness and permeation.

In a comprehensive and insightful compilation Shweder put together with LeVine, apart from papers submitted for the conference, the book documents several discussions that took place during the planning session of the conference amongst culture theorists (anthropologists and psychologists), some are even notable to this day. These edited transcripts have provided a good glimpse into the different standpoints these experts have regarding the many aspects of culture and also the consensus they have reached towards certain threads of discussion. Similar to discussions surrounding the concept of Piaget's constructivism, there have been polar tensions between the cognitive and the affective elements.

Coincidentally, these cultural theorists have acknowledged Piaget's approach and also generated discourse from there with regards to culture and the developmentalists point of view (Shweder and LeVine, 1984, p. 4.). Regardless, what is most consistent about the various approaches is the close interactions they have with their subjects when conducting the studies. "From Piaget's point of view, a detailed inquiry is the only way to discover, not only what the child thinks, but how he or she reasons and reaches conclusions." (Sigel and Cocking, 1977, p. 7.)

As D'Andrade nicely sums up the connection between cognition and culture:

"Before 1957 the definition of culture was primarily a behavioural one – culture was patterns of behaviour, actions and customs. The same behavioural emphasis was there in linguistics and psychology. The idea that cognition is where it's at struck all three fields at the same time – it has a slightly different trajectory in each discipline – whether you do experiments or whether you look for intuitions or whether you talk to informants. I think it was a nice replacement. But the thing is now breaking – that force set in motion in the late fifties. And I feel it's breaking in psychology, it's breaking in linguistics, and it's breaking in anthropology – and we each have different ideas about how it's breaking up." (Shweder and LeVine, 1984, p. 7.)

## 5.5. CULTURE THEORY

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This leads us to the topic of culture, where we shall delve into for a moment. It may seem obvious that since food is a cultural product, therefore cooking should also be included since you need to be able to make the food product by cooking or preparing it. Geertz refers to culture as a "historically transmitted pattern of meanings embodied in symbols, a system of inherited conceptions expressed in symbolic form by means of which men communicate, perpetuate, and develop their knowledge about and attitudes towards life [where] terms such as 'meaning', 'symbol' and 'conception' cry out for explication." (1973, p. 89.) In this way, cooking can be understood as a symbolic expression of culture.

In his essay, LeVine discusses four characteristics of culture an ethnographer experiences. (LeVine, 1984, p. 68-86.). 'The collective nature of culture' through the example of language (a component of culture), demonstrates how the need for mutual understanding is met by an agreement of standards in a speech-community. This can be seen by how linguists can extract and classify the rules of pronunciation and grammar of a specific community just from a small sample source.

'Indeed, without such common understandings (of symbolic forms such as gestures, dress, property, writing, visual and the theatrical representations, careers, relationships [and cuisine]), what kind of social communication, or community, would be possible?'

- LeVine, 1984

'The organized nature of culture' draws from the kin-avoidance customs example three kinds of organisation: a structure of rules on moral etiquette between and within different groups of kin, a 'lexico-semantic organisation' that connects private emotions of shame with public requirements of moral disposition, and a bigger abstract organisation where elusion and crude joking balance off each other in contrasting moods found in a community. (Ibid., p. 76.) These point to the suggestion of how 'common sense' develops within a culture, through these proprieties, and not randomly. We are thus reminded of the notion of schema and equilibration of information and the concept of embeddedness. 'The organized nature of culture' draws from the kin-avoidance customs example three kinds of organisation: a structure of rules on moral etiquette between and within different groups of kin, a 'lexico-

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semantic organisation' that connects private emotions of shame with public requirements of moral disposition, and a bigger abstract organisation where elusion and crude joking balance off each other in contrasting moods found in a community. (Ibid., p. 76.) These point to the suggestion of how 'common sense' develops within a culture, through these proprieties, and not randomly. We are thus reminded of the notion of schema and equilibration of information and the concept of embeddedness.

'The multiplexity of culture' again reiterates how culture cannot merely be explained by its obvious or implied extensions. Yet, it would also be inadequate to ignore those evidences just because they lack social and psychological qualities. 'In culture, as an organisation of shared meanings, some meanings are more explicit than others, for reasons having to do with the pragmatics of social life and their history for a given society.' (Ibid., p. 77.) We can see such proof from ideologies of certain societies, where rational and non-rational qualities are found inside. Between 'arbitrary symbols and culture as a means of adaptation' (Ibid., p. 79.), the ethnographer has to remain objective to both as being integral to culture.

Lastly, 'the variability of culture across human populations' characteristic speaks of the challenge to generalise cultural diversity. With that, there are cultures so varied within themselves, one has to be aware of being over communicated to as with over interpreting, on the other hand, going back again to the limitations of language and expression, it might be too shallow to understand a culture just by the face value of the information. Furthermore, established categories within the anthropological field (for example economy, kinship and marriage, religion, which tend to come from western origins) used for observing cultures may not always be applicable in all societies.

That being said, LeVine's observation of culture as being 'collective, organized, multiplex, and variable' (Ibid., p. 84.) are not exhaustive indicators. As we shall observe from the findings of the interviews in the next chapter, there are also limitations and challenges in translating the Finnish cooking culture into rationale categories; which we will do so to jump start the iterative process. Nonetheless, it would be tricky to have a balanced sensitivity towards sifting out cultural cues. It goes to show how this one study would not be enough to fully understand cooking and its cultural context, especially with the variability of culture continually being affected through time by other cultures.

On the behavioural side with regards to intuition, Turner's (1967) rationale of culture speaks of how in contrast to the

Piagetian theory (and I further translate it with Piagetian terms), the earlier accommodated information are not lost after equilibration but linger to form the intuitive grounds for emotional reactions to symbols. This suggests the impact of the cultural environment one grows up in having an effect on their reaction towards certain public symbols, where the reaction would mirror the different levels of cognitive experience with them, as compared to one being in contact with those symbols only in adulthood. We can also perhaps associate the reflective levels of understanding as being similar to the equilibration process.

It is therefore fundamental that when dealing with learning theories or behavioural science, we cannot avoid the existence and influence of culture and how it in fact intertwines with the understanding and development of behaviour.

#### **5.5.1. WHAT CAN WE EXTRACT FROM HERE?**

Now that we have a better understanding and overview of behaviour, we shall move on to discuss the concept of behaviour change, which is what we are hoping to affect with regards to cooking behaviour. Although most theories are considered developmental, synthesised with the findings from the interviews, we could contextualise (to the activity) the factors that relate most to cooking behaviour and investigate as well as ideate from there. As mentioned earlier, an iterative process of theoretical understanding and specific behaviour study could help in creating a framework applicable for designing for that behaviour cum activity.

As designers, we might be too sensitive or empathic towards users and over interpret cues and findings. The theories serve as conscious limitations to what we can do, and how much more we should do to really understand, in this case, behaviours. Many of these experts have spent years researching large numbers of children (Piaget) and populations in their habitats (anthropologists) to reach the conclusions they have reached or theories they have suggested. Realising the extent of work carried out by those in the field of behavioural and social sciences put some perspective towards design research and the notion of understanding the user. It also suggests the necessity for collaboration and sharing information across disciplines so we can investigate further and deeper, as well as test, modify and apply them in our respective fields

Trying to understand these theories for the benefit of design definitely is on a very initial and superficial level. However, much like how Piaget's theory started with some claims and

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findings and generated so much further investigation and discussion, I am hoping by going back to question the core of the activity, we will find new areas to explore the concept of cooking and eating than merely the tools and ergonomics of the kitchen area. There are so many things that have been culturally embedded and set in motion and in place by people in the past; time permitting, it would have been even more refreshing and acute to wonder how they settled upon such systems of use and function and if these imprints can be improved, rethought or even redefined, if necessary. For example, if we could go back in time, would we have reinvented the prime functions of the microwave and its technology and the food products that support its usage?

What the culture theory tells us is relevant especially to the approach necessary when studying humans. It also challenges us to consider what we can change and what is intrinsic to the culture and identity of the person (by degree of embeddedness). Should we even be messing with culture? We are also aware of the limitation of language and how much we can extract from verbal interviews.

On a critical level, we should regularly go back to the root of the issue and see how far we have deviated from it. To develop from the current, might just extend the entangled cables of a broken telephone analogy, and perhaps that is how we have ended up with the complex and negative consequences of the current food system. I believe re-looking at the whole cooking behaviour from the beginning will give some clues towards solutions for the current day. After all, if you have ever tried to untangle cables, you never start from the middle, and in this case the 'end' is connected to too many other channels (e.g. culture, beliefs, supply network, advertising, ethics) to be able to just pick one to start from.

It is with this reflective level of consciousness that I proceed in my capacity as a designer to handle the findings from the interviews conducted with the aid of some of the behaviour concepts, the indicators of cultural or growing up factors as well as the attributes of cooking sensibility that was consolidated earlier on.









## 6.1. INTRODUCTION

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In the earlier few chapters, we have gone through quite an extensive range of discussion touching briefly on some topics and deeply on others. The amount is probably never comprehensible enough to give a holistic understanding to this complex and rich topic known as cooking, but hopefully this attempt has brought to light some of the basic attributes of cooking sensibility; the attributes that have either been lost in one corner of an argument or overshadowed by other efforts within the growing food movements that seem to have louder voices with regards to our well-being.

The introduction into behaviour chapter was also a necessary inclusion to remind ourselves as designers not to be led fully by our intuition and understanding of certain concepts, but to also rely on other efforts and findings that have been done in other disciplines with great expertise.

Knowing what to look out for with the behaviour concepts, we can now take a more critical view at the cooking attributes and synthesise these two pieces of consolidated information (Section 6.1.2.). It is in this chapter that we not only use the interview findings to assess the occurrence of the attributes and concepts, but also find a way to streamline the findings down to those that exhibit behavioural components.

Therefore we will end up with a few sets of information that would hopefully be sorted in a way that can tell us much more about cooking behaviour in a manner of a draft framework, since this is just part of a longer iterative process. This framework will help act as a guide to explore behaviour change in the next chapter.



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## 6.1. 1. METHOD FOR ANALYSING RESULTS

To facilitate the organising of the findings into themes, we will first review Figure 3 which showed a compilation of attributes that can lead to more sensible cooking. In this diagram, I have compiled the main topics brought up amongst various writers and discussions concerned about the state of cooking. I have referred to these topics as attributes to cover both the soft and hard skills and characteristics that seem to allow one to be able to cook. To give the cooking activity a positive connotation, such as through food choices and well-being, I have chosen the term ‘cooking sensibility’ to classify these attributes.

I am re-introducing this diagram here to create development and contribution to current discussions and acknowledge earlier findings from people in the food and cooking scene. This also acts as a good starting guide for the investigation into cooking behaviour and the search for a behaviour change framework. Therefore this diagram is not fixed but modifiable with further research into this area, such as through the proposed iterative analysis process.

The first major modification to be made is to integrate what we have learnt about behaviour concepts into our understanding of these cooking attributes. If one looks closely at the diagram, it is actually perceivable that some of the structures and relationships between the attributes relate to behavioural elements.

At this stage, I want to take the behavioural concepts (Section 5.3.1.) of ‘biological’, ‘construction of knowledge’, ‘assimilation and accommodation’ and ‘culture’ into the diagram and reorganise it a little (Figure 7). We will see that not too much changes after all and we have a better idea of at least how culture and knowledge actually comes together with our own biological development to form our ‘belief system’ (Section 5.4.). Our belief system can affect many things and the way we react to different situations, but in this diagram, we are focusing all these attributes towards cooking, and therefore our belief system could in some sense reflect what makes up cooking behaviour. I placed a question mark there to indicate the ongoing process of this research, since we are only at the early phases of making sense of cooking behaviour and cooking sensibilities.

Figure 7 will now be a major reference guide in the process of sorting and analysing the interview findings. To have a better idea of the categories, I will now explicate on them especially the behavioural ones, and attempt to orientate the concepts towards cooking behaviour as well. I have retained the terms used in Piaget’s theory just to make things less confusing and to make referencing back to the

behaviour chapter even easier.

## 6.1. 2. BEHAVIOURAL ATTRIBUTES OF COOKING SENSIBILITY – A DRAFT FRAMEWORK

To help with the sorting of the findings, I have tried to explain the attributes further in Figure 8 to show the lens I looked through while going through the findings. It is through the iterative research analysis process that hopefully one day the framework will no longer be a draft but a concrete reference guide.

I have simplified the behavioural concepts and tried to make them more distinct across the construction categories so that it will be easier to group the findings into clusters. That being said, there is always some overlap amongst the ‘actions’, ‘interactions’ and ‘experiences’ attributes since nothing occurs in such a compartmentalised manner.

The key concepts we will thus tackle with the interview findings are therefore

- Biological
- Personality
- Cultural
- Preferences and Desires (related to personality)
- Preferences and Desires (Tacit/Unknown)
- Actions
- Interactions
- Experiences

Actions, interactions and experiences will be further divided against a scale of low, medium and high impact on cooking behaviour based on some of the understandings of the assimilation and accommodation concept in Piaget’s theory.

The intention is to hopefully be able see the different influences of the findings on people’s cooking behaviour in a systematic, logical manner, to better understand the context and the individual’s growth with cooking.

Furthermore, the process will also help to assess if the framework draft is comprehensive enough in framing cooking behaviour and how else it could be improved for future research iterations or testing.

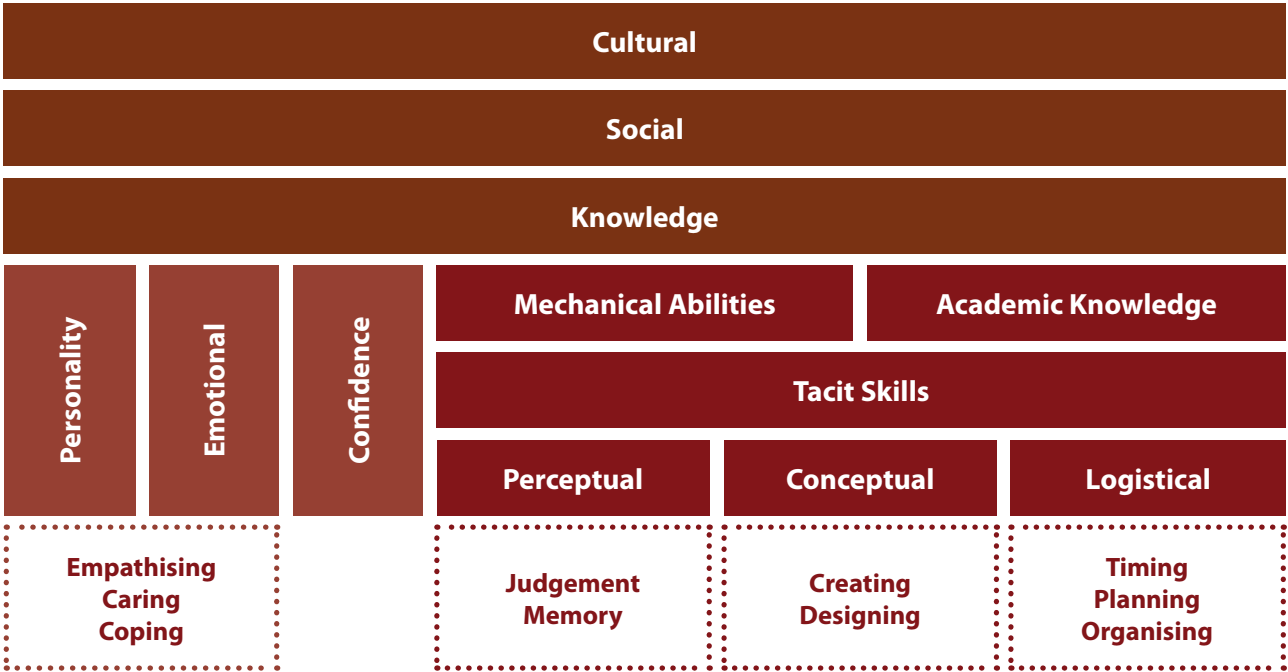


Figure 3: The various attributes of cooking sensibility.

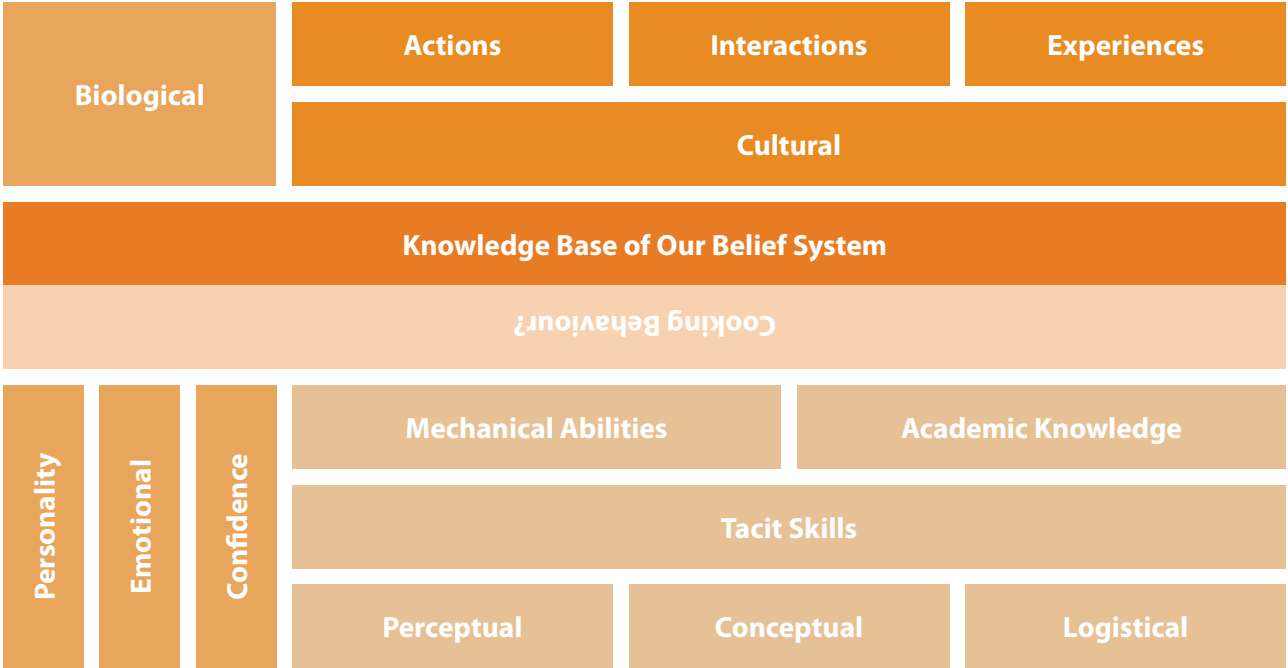


Figure 7: Behavioural attributes of cooking sensibility – towards understanding cooking behaviour.

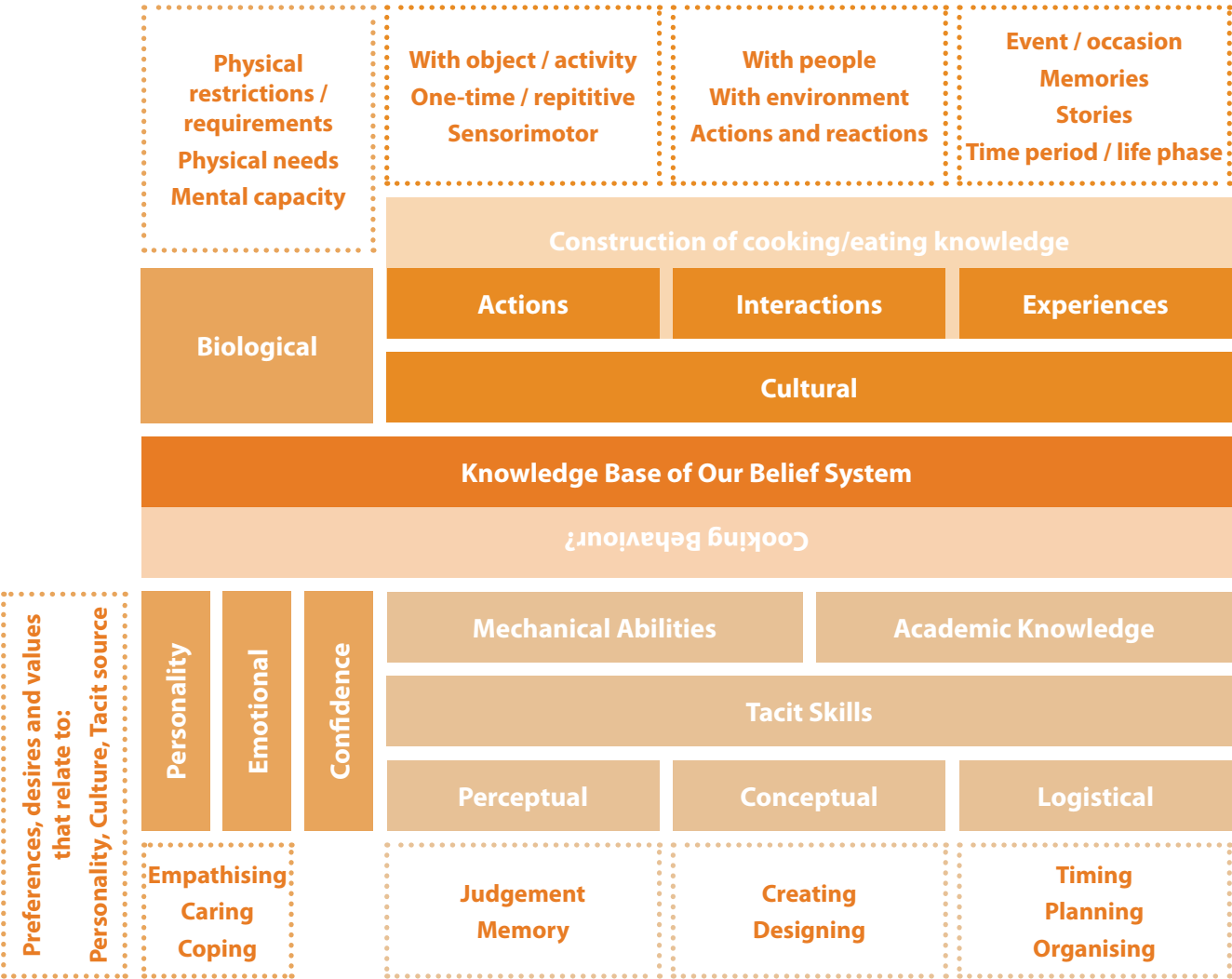


Figure 8: Behavioural attributes of cooking sensibility (draft)

## 6.2. FIRST ITERATIVE ANALYSIS WITH INTERVIEW FINDINGS

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The interviews generated a lot of valuable data that were transferred to large affinity diagrams to help sort and make sense of the mass of information. It took one a few tries to be able to sort the information into logical categories. This process itself helped me tune into the elements of the concepts that otherwise always seemed like they overlapped, the iterative sorting was what helped me flesh out more succinctly the characteristics under each construction category that were the most important lenses for the final sorting of the data.

In this section, the findings will be presented in an array of tiles labelled into themes that best represent the findings by. Some examples will be included to have a closer insight into the different participants' lives.

However, as this is a qualitative exercise, the male and female icons serve more as abstract indicators of who contributed to the discourse than how many. The first three sets of icons refer to couples with children older than 1.5 years old (toddlers), while the other three are those with very young babies. Therefore some themes seem to be only answered by couples with toddlers as they have experienced a bit more in some area to tell their experience. Nonetheless, there could be some gender cues, but we should not weigh too heavily on that.

In some sections, we may find some themes having more than one impact, therefore the descriptions and examples are even more important here as they serve to show how they differ and suggest why their impacts are as such.

At the end of the exercise, to take the iterative process further towards exploring behaviour change, by gathering the high impact and strong potential themes and see if they can divulge further information that to help one to reach a cooking behaviour destination.

## THE BASICS

That weekday cooking is usually 'edible', 'easy', 'normal', 'daily food', 'necessities'...



## NECESSITY

You have to 'feed the crowd' (family).

You have to 'make food everyday'.



## SURVIVAL

When one moves out from home, they have to learn how to cook.

'Well of course when you move out of home you have to start cooking of you'll starve to death.'



## ENERGY LEVEL

This affects the mood towards cooking as well as interaction level.

Sometimes it helps to decide who gets to cook, except for couple 1.



## HUNGER

Hunger is a driving force to start cooking, often a bit too late, thus affects the planning and speed of preparation.

Hunger is also a daily 'rhythm'



## APPETITE

Feeds child according to their appetite.

'He will ask more food if he's hungry again.'

Probably also from breastfeeding experience, the child knows how much they can eat, perhaps some intervention with meal times as they get older.

Couple 4 also experienced having not enough leftovers because the partner eats so much.



## FILLING

The meal has to make them feel filled.

Salads might not be filling enough.

Meat seems more filling.



## FEELS HEALTHY (physical)

That food affects how their body feels.

Pre-prepared may make one's stomach feel uncomfortable.



## BALANCED

Dinner choices are compared either with lunch choices or the previous day's meal.

One may eat salads to balance heavy meals, or prefer less meat because she eats quite a lot of meat at home.



## PREGNANCY CRAVINGS

One desired more fresh, natural and healthy food during pregnancy.

One felt like eating more and craved chocolates.

One was careful about the weight gain and therefore what she ate.



## ALLERGIES

One partner had allergies to seafood and eggs which greatly affected the family's food choices and use of kitchen tools.



## CHILD'S DEVELOPMENT

Cooking and eating time revolve around child's rhythm - when they are hungry, tired, need to go outside.

Food choices considers the child when they start eating solid food, such as using less spices or what child would want to eat.

One has to 'design our food around that'.



## MIMICKING

Child has a tendency to do what the adults are doing.

Some allow the kids to help out while keeping a watchful eye.

One keeps the child occupied in similar ways such as with a wooden spoon and raisins in an empty pot.



## PLAYFULNESS

Child having the tendency to play with food and other objects.

Parents may stop child but usually lets them make a mess and learn how to eat by themselves.

Most have no strict rules but enforce some basic manners. e.g. no toys at table, no feet on table.



## 6.2.1. BIOLOGICAL

### Physical restrictions / requirements

### Physical needs

### Mental capacity

Here we get a picture of themes that are probably hard to affect due to their biological nature.

It is still good to keep them in mind as they could act as a primer or facilitate other activities. This we can see with themes such as 'mimicking' and 'playfulness' later on.



## VALUE OF FAMILY

All couples cite family relationships and family related notions as being one of their most valued in life.

'What [is] as important [that] I might get?'

Most also try to eat together as often as possible. Perhaps reflected from the time when they lived with their parents.

'Nowadays people are eating more dinner together like 20 years ago.'



## STRESSFUL VS SLOW LIFE

The fast pace of working life has created a desire for a slower pace of life, with more time or 'timelessness' to cook and do other activities.

The desire to not be hurried.



## 'RIGHT KIND OF FOOD'

Organic food - usually perceived as expensive.

Fresh - usually only found at the market places.

Berries

'More veggies'

Salads

Fresh fruits



## BALANCED LIFE

When asked about well-being, all couples in their varying replies reflected a general desire for balance between work, loved ones (family) and personal time.

This balance also covers mainly notions of security, happiness, health and freedom of time.



## STEREOTYPES AND GENERALISATIONS

One feels it is too 'adult' to plan a shopping list and 'middle-aged' to go to a big supermarket on a Friday evening with a yelling kid.

Some also regard country side women who cook while men earn money as being 'traditional' roles, where wives have to do everything for the men. One wants to break that 'tradition' by teaching her sons to cook.

Others are surprised how some have 'old fashioned beliefs' towards vegetarianism.

One feels that people who use pre-prepared food usually have older kids or are single. Older kids because it is too difficult to coordinate eating schedules with the kids various activities.

Another feels that those with better well-being and more spending power think a bit more about what they are cooking and eating.

One noticed Kallio men usually cook.



## TRADITIONALLY FINNISH

One feels there is not much of a Finnish food culture. Most of it based on surviving the elements such as the harsh winter. To have enough energy and to keep alive, not about making food taste good.

Another thinks about where certain dishes come from when preparing traditional dishes.

Others regard Finnish food as 'normal food' where they make it more often, for the everyday. (ref. THE BASICS)



## TRENDS

Some have expressed a desire for professional kitchen equipment, tools, fittings and interiors especially when asked about their dream kitchen.

These seem to reflect trends from external sources, one even has a scrapbook of wants with magazine cut-outs of kitchen products that she wished to have.

Some would like steel coloured machines, others 'restaurant style' interiors, food processors, open kitchens, gas stove, wood oven, 'modern machines'.



## PAST POSSESSIONS

There is a combination of wants and don't wants based on what they had while growing up.

Those that had things they don't want, gave them away or sold them at flea markets.

Others went to flea markets to get old things hinting to some level of nostalgia and value of these things.

'kitchens are very well made back then.'

Whilst others got things from their parents collection.



## HOME INFLUENCE

Couple 5 feels their way of organising things is 'inherited somewhere from home'. They recall a reference that it also tends to reflect the wife's side of the family.

Another reflects how he 'never had [a] microwave because [his] parents didn't have it'.



## OFFICE

Some bring leftovers for lunch in the office. They use the microwave there, and notice other colleagues doing the same.

Others submit to the prevalent finnish office lunch system.



## DIETS

There seems to be some media influence in couples trying out certain diets.

Couple 3 is trying out a low carbohydrates diet after learning about it from a well-known finnish doctor.

Couple 4 stopped eating red meat citing health, price and environmental reasons.

One also would like to make more slow food like soups, but feel that he would get too hungry for that.

Others do read certain food and health related articles when they come across it but do not purposefully search for them.



## SUPERMARKET DUOPOLY

S- and K-supermarkets having the largest share in supermarket control.

One laments that they compete in price than in quality of the offerings.

Some feel the quality and variety from these supermarkets are 'discouraging' such as in the selection of fish, bread and 'real meat'. One has to go to Hakaniemi if they want such ingredients.

Others feel that K-supermarket does offer better variety and quality in general and prefer going there. One is even loyal to that chain.

All this affects the frequency of going to the supermarket and the foods they can and feel like buying.



## IMAGE OF PRE-PREPARED

Most use pre-prepared mainly for convenience purposes.

'You just have to sometimes.'

'it has it's places'

In general there's a negative regard for pre-prepared food and it's quality, that it is not 'real stuff', with a lot of additives, salt and flour and being not healthy.

Although there is some exception for branded / gourmet and baby pre-prepared food.



## IMAGE OF FASTFOOD PLACES

There is general negativity towards fast food places, most only eat out of convenience and hunger.

Others are more adamant, not wanting hamburgers even when hungry, saying that 'food still matters' in such situations.

'You have some sort of feeling like what you definitely want and what you definitely don't.'





### 6.2.2. CULTURAL

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Although Cultural was not broken down into key terms in Figure 8, from the displayed findings we can see that our environment of tradition and other integrated systems serve as a cultural influence to our daily lives.

Perhaps we could think of culture as a large force or system of action in place in one's society. This could range from the usual tradition to commercial systems like supermarkets and the office environment.



## PRACTICAL

All couples have a strong display of practicality be it in the way they handle food like eating leftovers, making bigger portions, freezing breast milk and using pre-prepared mainly for absolute convenience.

One displays this characteristic by eating something small to quell hunger before starting to cook.

Others refrain from overbuying based on consumption, refrigerator capacity and proximity to shops.

Another is regarded as 'ascetic' for keeping only what she needs and keeping only the necessary tools needed in the kitchen.

This characteristic also translates to a preference for functionality. (ref. PREFERENCE & DESIRES)



## CLEANLY

Most often seek a level of cleanliness although not too particularly.

One couple cites that a clean environment helps give them mental clarity to carry out tasks..

Others feel with the baby around, 'now it's quite often a bit dirty' because they adjust to the baby's needs than their previous routine.



## ADVENTUROUS/OPEN

Quite a few are keen on tasting new things and 'special food'.

'...as long as it's good.'

One even has an eat everything motto.



## LAZY

A lazy streak is expressed by some couples.

One is lazy to sharpen knives.

Another feels cleaning can be a waste of time.

One would like to compare purchases more but does not.

Yet another even eats more at work, as the main meal of the day, and is also lazy about making salads daily even though she would like to.



## IMPATIENT

This is seen by how some handle cooking.

Some will multitask instead of just waiting for the food to cook.

Others would like to prepare everything from scratch but feels it needs a lot of time.

One even starts scrambling her eggs because she cannot leave it alone to set in the pan.



## PARTICULAR

This is reflected in different ways from not driving to the store because of proximity and public transport,

to being temperamental about cleanliness and hurriedness while cooking.

Some are also particular about organisation of the kitchen.

'every stuff has it's place... everything in order is really important!'

Yet others are particular about ingredient quality from supermarkets and lament about the offerings lacking variety or quality.

Other end up buying only certain brands or from certain places.



## EASYGOING

Conversely, this also overrides some preferences.

Many make do with how the fridge gets organised.

Others allow eating in any part of the apartment.

Lunch choices are very flexible and mainly situational.

If really hungry, anything goes.



## ECONOMICAL

This often balances out their desires of better and nicer things.

One cites that the new place has relatively new machines which they will keep even though they are not as they would like it to be.

Another sticks to the company linked loyalty programmes for meals when on business trips, even though he feels they are 'junk food'.

There is however a general positivity towards eating leftovers.

Another only uses the dishwasher when it is full capacity. They are also thinking of salvaging food thrown out from supermarkets.



## HOSPITABLE

Many enjoy having friends over for meals.

They also put extra effort in presentation when guests come.



## EMOTIONAL

There is a level of positive emotions related to the cooking activity for some. This is often reflected in the form of interest.

For one, there is a preference for baking over cooking.

For others, it is a hobby.

Another expresses passion and love for food in general.

Whilst others simply enjoy preparing food.



## AESTHETIC

A few display an eye for beautiful objects.

One feels she is a 'looks type of person' with regards to kitchen objects.

Another exudes this especially in her scrapbook of wants and her regard for cooking as being an 'artistic' expression.

Others show it when making special preparations for guests or having a uniformed labelled collection of spice bottles.

The beauty in the old is also seen in having retro kitchen styles or keeping 80s fittings.

Others take pleasure when food looks nice on the plate.



## 6.2.3. PERSONALITY

Personality can be understood as character traits that one exhibits. Relatable to Biological themes, it is also hard to see how to affect personality since it is hard to trace how they develop.

Nonetheless, this section serves to give an idea of the types of characters and why they might do what they do.

## PRACTICAL

Most desire more furniture and tools that are functional or serve as 'kitchen aides', machines that 'make it easier'.

Others have preference for things that aide accessibility of kitchen things and keeping them organised.



## CLEANLY VS LAZY

Many find the dull side to cooking is the cleaning up. Therefore the dishwasher has been every home's best friend.

'And then you think after that 'oh shit, maybe the dishwasher is really really important in my life' and maybe it is.'

Washing also deters one for certain usages and certain purchases that might require more cleaning.



## ADVENTUROUS/OPEN

Apart from eating, the influence of trying other cuisine is seen in their kitchens as well.

Some do experimental or inspired cooking from these cuisines and their ingredients.

Others desire tools and gadgets to make these foreign foods.



## PARTICULAR ABOUT 'GOOD'

There is a desire for 'good'-ness, be it in good ingredients, good recipes, making good food and for food to taste good in order to be engaged in cooking.

'...if it's a good smell when you make it.'

'...now it depends on what tastes best.'

One would even lie that he is not hungry to avoid eating some foods.

Others like to 'relax and enjoy good things'.



## PARTICULAR ABOUT ORGANISATION

Those particular about organisation often get moody when things are not in order. This is inferred from the frustration of having to find things as well.

'Everything is a mess [because he] puts things wrong.'

'It looks very terrible' (things in refrigerator)

'Sometimes you're wondering where is something.'



## HOSPITABLE

To facilitate hosting and social activities a few desire an open kitchen concept in their dream kitchens.



## RESULTS

There is a underlying expectation about the results of cooking.

Some are pressured by how food will turn out especially when there are guests.

Another will be disappointed if food cannot be eaten if it turns out wrong.

Others are in anticipation of the cooked meal and get disappointed when it's not what they expected it to be. For example if a pasta dish turns out to be a cold dish instead of a warm dish when made by the partner.

But one is 'not bothered when it is [her own].'



## MODERATION

Although only one person expresses this, it relates closely to how one balances out meals (ref. BALANCED) and handles well-being (ref. BALANCED LIFE).

'I think it's maybe important to have a lifestyle where... it's important to feel good, to be healthy, that you don't have to think about it a lot... I think a lot of people get a lot of problems because they are maybe too eager to achieve a good lifestyle and forget to relax and I think it's really important to relax and eat good unhealthy food, not everyday but to do it pretty often and to like use real ingredients and not like products... but in order to do that you have to exercise a bit. I think it's important to have a lot of time to be able to relax and enjoy good things and have a good meal and a beer or a glass of wine, that's my philosophy.'





## SOCIAL VS COOKING

To some, even though cooking can relate to a social aspect, it is nonetheless a separate aspect.

One couple managed to complement each other with one partner doing the cooking and the other enjoy planning the social aspect of it.

'to be honest, I'm not really a cooking person. He cooks at home, I invite the people (laughs) so more like a social [thing].'

Another feels cooking and social relate to different areas of food.

'...cooking is something personal that a person does, and eating is a kind of social event.'



## WEEKDAY VS WEEKEND

There is a distinct difference between meals for these days which we can infer could be due to several factors.

One feels cooking in the weekdays is 'like the normal work.' She doesn't use recipes then.

For another '...in the weekends it must be something special or fresh.'

Couples do not mind making dishes that take more hours to cook or to try something new and invite friends.



## HEALTHINESS

There is an inherent understanding of health relating to food.

People desire to be in good shape and eat 'healthy food'.

'...it really affects you what you eat so I think you kind of need to understand... how much food can affect you; and it's a great part of your wellbeing if you eat relevant and healthy.'



## CALMNESS

Other than basic safety measures, alertness and calm instruction, the parents of the toddlers are not worried about their child helping out and being in the kitchen.

One was even unfazed when the child accidentally got a tiny burn from the pan.

'...not the first time and it won't be the last time.'



## CARING

Some recognise the caregiving aspect of cooking and the pleasure of cooking for someone.

'... you get a sense of creating something and giving to your loved ones.'



## FREQUENCY

There seems to be a mood related reason for the frequential desire of cooking related activity.

'There are weeks we make quite often the same food then we forget about it.'

'Sometimes [cooking] all the time, sometimes, oh shut it.'

For others it is about using recipes everyday and then sometimes not at all.



## COOKING LIMIT

There seems to be an invisible limit to the amount of time people want to spend cooking in the weekdays.

One cites that half an hour per weekday for cooking 'is enough'.

Another says, 'well it's not so important, less than one hour daily I guess is enough.'

But someone else thinks that one hour for cooking is quite a lot, 'more would be impossible maybe.'

One other is satisfied with the amount of time he spends now, 'not more not less.'



## TO MAKE FOOD

A few couples express positiveness towards the process of making food. It seems to appeal to their affective side.

'It's nice to make food.'

For some it is nice to try out recipes, for others it is 'relaxing' or 'therapeutic' especially after taking care of the baby the whole time.

One finds it as a kind of art where where she can express herself although she feels she is 'artistic without skills'. Another agrees it is a way of producing and creating something.



## TO PLANT

There is a desire for some to grow their own food as part of cooking.

Some already do, some want to grow more.



## TABLE FOR ONE

Those on maternity leave tend to slip back to easier or faster lunch solutions when remaining at home with the baby.

These include making bigger portions for dinner to be eaten the next day as leftovers.



## SPACIOUSNESS

More space is a constant want for many people. This applies to kitchen size, storage spaces, refrigerator storage spaces working spaces and even dishwasher capacities (that suit the household size).

For others it affects where to dine.

'...where has more room to eat.'



## NATURAL LIGHT

A window to allow in sunlight is also a feature often wanted.

For one it determines the location of the dining table.

For another, it provides 'good light' in the kitchen.

While some would like a bigger window.



## KITCHEN TABLE

A small table is a common essential in most kitchens, size permitting.

Most of them intentionally wanted one there.



## CHALLENGE VS INTEREST

One regards an aspect of 'advance cooking' as dealing with 'heavy meats' which he feels he is not good at, but it is also because he has not much interest in it as well.

However on the contrary he enjoys the challenge of finding hard to find ingredients.

Perhaps we can reflect how sometimes cultivating interest could be more useful than making everything seem easy; as with the other non-technical attributes.



## INSPIRATION

Some feel that they can get inspired for cooking from the food they have eaten on holidays, at restaurants, from recipes, from what they see in the shop and whatever is found in the refrigerator and cupboards at home.



## CONCENTRATION

Some feel they would enjoy cooking more if they can just 'vanish' into the activity without having to do other things.

Multitasking especially when looking out for the child often affects ones concentration.







modern kitchen

## 6.2.4. PREFERENCES AND DESIRES

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### **Preferences, desires and values that relate to: Personality, Culture, Tacit Source**

Based on the concepts of Biological, Cultural and Personality, we are starting to understand and see which desires and preferences relate to which concept and how malleable the themes under these concepts are. Furthermore, as Biological and Personality concepts suggest, perhaps certain things should also be left to the course of nature.

The Cultural concept is especially suggestive of man-made traditions and practices that have been set in place and in motion over time, but they do not necessarily mean that they are set in concrete. It also urges us to consider what aspects of culture relate to identity and authenticity of a certain context (country), that have valuable meaning and desirable retentive qualities.

From the themes that have surfaced under Cultural through this research, on an ethical level, I can confidently opine that each can actually be molded on a safe level without undermining the constructs of the Finnish culture. Of course more investigation into the appreciated aspects of Finnish culture would make this statement more substantiated when one can compare these themes against those aspects. But for now I will move forward comfortably with this inference.

We will return to the Cultural concept again later as we approach the analysing of behavioural patterns.

Preferences and desires on the other hand that relate to some tacit or unknown source also suggest how some things have been routinised or in-built into the mindset of the participant. Time permitting, it would have been rewarding to have gone back to ask the couples further about these themes and see if we can find the source for them.

#### **6.2.5. CONSTRUCTION OF COOKING/EATING KNOWLEDGE**

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The findings in this section will be used for a closer behavioural analysis later. They are also the ones that will be brought into the behaviour change chapter to explore with these tangible examples the routes for design intervention, facilitation and application.

## MEMORY

Despite making meatloaves often, one could never remember how much water to add.

However it turned out ok when she intuitively added more flour.



## SENSITISING

One feeds the baby at the table always.

'Maybe we're trying to get her to get used to this place, that this is where you eat.'



## SEQUENCING

'One thing I don't like in cooking, even if you have a recipe, you don't know if you're preparing like three different things, like when to start what, how to do it all the same time?'



## MEDIA (COOKING PROGRAMMES)

Some look at such programmes 'for fun'.

Others acknowledge it is 'trendy' to watch them, but her partner finds watching them 'boring' even though he uses the chef's recipes.

Another likes watching them but feels there is a limitation to what you can really make at home based on the ingredients and equipment.



## RECIPES (FIRST TIME)

Most follow recipes very closely when it is their first time using it.

One feels it demands her concentration.

Another expects the result to be similar.

One 'trust[s]' the recipe so much he does not even taste it before serving.



## With object / activity

### One-time / repititive

### Sensorimotor

As I observe from a design perspective, it is surprising how many other areas affect actions other than good and useful tools. This really broadens the scope of addressing cooking through other ways of design than just the physical one.

It is also interesting to note that though actions tend to hint towards training and technical approaches, those also cover only a few of them.



## TOOLS

These tools provide assistance to the cook depending on their familiarity with the process.

Regardless, timers seem to be the most assistive.

For others, recipes are a reference guide.

One even cited the use of her iPhone to manage her baby's feeding times.



## TASTING

Parents feel that it is important for the child to 'taste everything'.

Some assist by informing the child what they are eating, to get them 'interested in eating'.

'...he has to know what he's eating'

The children can surprisingly eat strong food like Pecorino cheese, leek and onions.



## SHOPPING LIST

The few that make shopping lists use it more to update regular foods that are depleted in the refrigerator.

Some also jot down special ingredients for a certain recipe.

But overall it serves to assist memory or as a checklist of the necessities.

For one couple it helps to save time shopping, but for the rest it is mostly a guide.



## MULTITASKING

When cooking, some tend to be also paying attention to what their child is doing. This tends to affect one's concentration and cooking time.

One has to keep a close eye, especially when the child is helping with the cooking.

Otherwise their ears are pricked to listen out for where their child is or what they might be doing.



## MONOTONY

For some, the monotony of certain activities bores them.

These include cleaning, loading and unloading the dishwasher and the preparation before the cooking like peeling vegetables and cleaning fish.

Perhaps this is where one's lazy streak surfaces, especially when there is a lack of excitement and anticipation such as in the result of the cooking.

But at the end of the day 'it's not that kind of mental thing, that you would think I like washing dishes or I don't like washing dishes, it's... the thing you have to do'.



## MEDIA (PRINT, INTERNET)

Some make an effort to read about environmentally friendly food when they see it.

Others access recipes online such as tasteline.com.

Some also search for healthcare advice online during pregnancy.

One likes to blog about food, for example about different types of yoghurts. This couple also like to post food related Facebook updates.



## RECIPES (FOR REFERENCE)

Those that refer to recipes in this manner tend to modify the recipe according to their tastes and time needed.

For some, taste is more important than looks.

For others, recipes are for 'better food' when there are guests and not the 'basics'.

They are also more for certain types of dishes like meat dishes and baking.



## MEDIA (CHARACTERS)

One was particularly mesmerised by characters who cooked in television shows (Monica in friends) or movies (Ratatouille). It made her feel that cooking is 'such a great occupation' and was 'fun'.



## SIZE, SHAPES AND FREQUENCY

For many, the variety of objects in the kitchen is either organised by some random 'natural' order, or based on how frequent some objects are used.

Simultaneously, it also depends if the objects can fit in the space as well. So the kitchen is a big jigsaw puzzle of accessibility and storage.

One couple had a big puzzle trying to fit a model kitchen that was on offer into their kitchen space.





## ROUTINE

There are several measures implemented by households that have been done so regularly that they have some lasting effects.

These include meal-times and meal patterns for breakfast, lunch and dinner.

All couples also always eat at the dining table now perhaps to sensitise the kids to that 'basic behaviour'. Most also tend to have a fixed seat for eating at or feeding the baby.

'...it turns out that way and stays forever.'

Some also always take food from the kitchen stove for the weekday meal.

While others find turn taking and cooking together 'quite [a] natural' adjustment.



## 'COMMON SENSE'

For some, cooking and organising the kitchen comes quite naturally and subconsciously.



## 'BY HEART'

Cooking learnt 'by heart' reveals several qualities such as when one manages to tell when food is cooked.

One shares that it is through a process of trial and error till you reach a level of 'common sense' as well.

'It's a process. You cannot make good food by just snapping your fingers. You have to fail miserably for multiple times before you get the hang of it.'

Dishes learnt by heart tend to be 'easy' dishes tend which include traditional dishes done often as well.

Others have also managed to memorise some recipes and improvise with that knowledge.



## SENSES

Senses of taste and sight especially are the most used by the couples when cooking.

It helps them to judge when food is cooked.

It also piques their reception of the food.

'...it tastes nice, it looks good and it sort of feels good too.'

Many people's favourite food is also taste dependent.

Taste especially is the biggest deciding factor towards the rejection of pre-prepared foods, mostly that it does not taste good or that it is too salty.



## FORAGING

By planting their own edible plants or gathering wild berries and mushrooms, there is an active interest to eat, store and use more of such foods.



## HABITS

Somehow certain actions can become part of person's being that operates on a subconscious level. Some can be linked to their personality as well.

One has a habit of eating very fast, while another likes to snack a lot.

One needs everything to be kept back at the same place.

Another changes out of work clothes before starting to cook, often he wears an apron as well.

Some tend to leave the dishes for a long time before dishwashing,

while others just have little habits like not having one's glass completely empty or having a certain type of beverage after another.



## FAMILIARITY AND FREQUENCY

Familiarity through frequent use of certain tools and methods makes one realise what is important and what is needed in making a dish.

Knives are probably used all the time which explains why most cite a good knife as their favourite or important tool and then a good pan.

'The most underrated thing in Finnish cooking is the knives.'









## PLAYING

Other than one couple having a toy stove for the child to play with, there is general freedom for the child to be playful even if they end up taking things from the fridge or opening cupboards to play with objects.

One couple leaves drawers of safe kitchenware for the child to explore.

The one with the toy stove noticed that the child and his friends are interested in the toy, 'like most of his friends are boys and they love cooking and playing, a lot of them.'

Some of the couples themselves recall playing and experimenting with food as kids with friends or siblings. They were mostly under ten years old at that time and regarded it as 'fun', but also noticed it tend to produce inedible outcomes and a mess.



## FAMILY INFLUENCE

The impact here tends to be not leaving much of an impression due to circumstances and quality of the interaction.

One felt that because her grandmother passed away early, she did not get a chance to learn cooking from her. Her dad cooked more at home and she felt it got her 'used to that, it's ok that men can cook.'

Another remembers her mother making food at home but it was 'nothing special'.



## HELPING

Addressing a child's playfulness and mimicry, parents allow the child to help out with cooking and other household activities.

They hope, the child becomes familiar with the activity either by watching or doing.

'I think they will learn just watching, they want to do what dad does.'

'...if he participates, he'll learn even without learning.'

We cannot be sure how effectively this helps with cultivating cooking behaviour, but the children responded by actually being able to do some tasks and take instructions.



## SOCIAL INFLUENCE (DOING)

The interactions here seem to spark a reflective opinion towards the activity after being in it. Here, further interest was sparked or died down.

One felt it was fun to try things out with the boys back then.

'it's sometimes fun to just try things out, just for the heck of it.'

His partner on the other hand greatly prefers the planning and inviting part of eating, even not minding the preparation, but just not a cooking person.

One embarked on his professional career in food and beverage (F&B) line after working at his friend's parents' café.



## 6.2.5.2. INTERACTIONS

### With people

### With environment

### Actions and reactions

Interactions accumulated the biggest collection of findings. Perhaps due to the nature that while living with family or with someone, there are a lot of instances of doing things together or one affecting another.

At this life phase of having children, interaction also increases as people seek advice on how to cope with a child in the family. Similarly, there is more interaction between the child and adult as well since they need constant supervision and care.

## GIFTS

One couple had many things from their wedding that they do not use.

They find some very old fashioned such as a silver dish from an uncle that is now tarnished.





## RULES AND INSTRUCTION

Most parents enforce very basic rules such as table manners, posture, no yelling to guide their 'basic behaviour'.

'But there's no strict rules'

'You have to have some kind of rules, then the kid can live like... doesn't have to think like can I do this, can I do that.'

'...the whole household has to communicate' to the child.

Couple 2 feels that the child does not understand rules yet.



## FOR GUESTS

When guests come, different reactions occur although all couples are positive towards having a guest scene.

Some panick about the result of the food.

Others want to try harder dishes from the normal.

Others feel more motivated to cook especially if you know they will like what you are making.



## PARTNER PRESSURE

There is some pressure on another when one partner seems to have a higher standard towards something.

One has had upgrade her standard of food choices because the partner 'doesn't like to have *anything*'

Another also gets teased about her poor cooking ability, but they compromise by having the other do the cooking, so she does not mind being insulted.

One knows she may comment on her partner to 'don't do like that' so they do not really cook together, it also happens with cleaning.

One simply feels conscious cooking with the partner in the kitchen, so he prefers to cook alone.



## INTERRUPTION

Relating a bit to concentration and mood, interruptions tend to be situational thus not happening all the time to be a big impact on cooking.

With a child's participation in the cooking process, it does make things a bit more complicated.

Revolving activities around the child also mean neglecting others. One feels that she cannot clean as much and it is 'not as clean as before.'

Others are simply looking for some peace to carry out or be in the activity.

'Sometimes it was easier to do the dishes than read ten times the same book [to the child].'



## HELPING

There are signs where helping has some impact when one child understands what goes into his favourite dish when asked by his teacher what he cooks with his dad.

One also recalls making food with mom or grandmother for the family before Primary school, and that it felt 'great'.



## CHOICE

One couple feels that allowing the child to choose a little for the meal makes them more willing to eat.

'...these kinds of little decisions so he thinks he gets his word also..'



## FAMILY INFLUENCE

Here, family effect from the past seemed to have some rub off effect on their older self or present.

One recalls having more traditional food back home with not much spices. She cites not liking mushrooms due to this, but after tasting a mushroom soup from her partner's family, 'because they have cooked it very well, so [she thinks], now [she's] more open to all different kinds of food'.

Another feels her dad influenced her in making bread and making better food in the weekends. Having both parents who cooked also sensitised her to having her and her partner cook as well.



## SOCIAL INFLUENCE (SHARING)

Here the interactions tend to be about sharing new information with each other or from observing and learning from others.

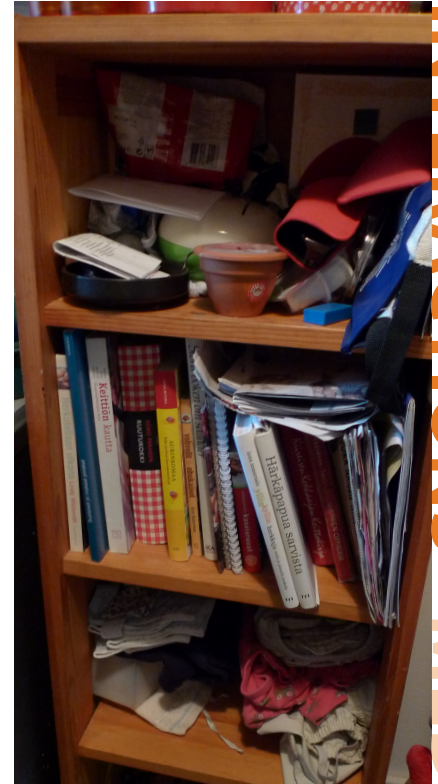
One recalls when he started to cook he 'learned from [his] room mates what they did'. Others want to make tasty food friends have made.

For some, their siblings have informed them of certain diets or health recommendations, while others are influenced by 'friends who know more'.

Some have been brought to eat chinese food or sushi and 'fell in love with it'. One even tried to make it at home after.

One was introduced by a friend to 'Fly Lady', a publication that gave household tips. She applies one good tip for organising now.

Another goes to an online website netcyclr.fi to exchange goods and got a new pan that they feel is 'better than those Teflon'.



## GIFTS

These gifts are on a more useful level which reflect certain relationships and means of recommending.

Many couples' cookbooks were mostly given.

For some, quite a lot of things in the kitchen are from the parents, hand-me-downs, instead of buying new ones.

One often gets gifts from her mom when she comments on what they have. Although some she has given away as well.

Others who received a very good peeler from their parents liked it so much they also bought it for their friends.



## FIRST BORN (ADVICE)

Being completely new to child care, most trust the health advice and lists from Neuvola, the maternity clinic, which they visit regularly for checkups.

'...ok I have this A4 and I'm going to live with it for 9 months, it's much easier for me' than for her to search and hear different kinds of recommendations and wonder which to follow.

Some also decide for themselves how strict they want to be with the list.

Some also get advice from family and friends

'whatever they were doing I did'

They got advice such as what to feed the child, how much to feed the child and most parents observe if their child grows to the normal statistics and usually continue with the advice.

This is also true with how they take care of themselves during pregnancy. Their partner has to remember the constraints and perhaps accommodate to her diet.



## COMMUNICATION

Communication between partners facilitates most importantly the planning of the dinner/meal and grocery shopping.

On a weekday they either text each other, but most prefer to call. In the weekends they just discuss face to face and may go shopping together.

"you normally ask me 'what you want to have for dinner tonight'... and then you 'ask what do we have in the refrigerator'"

They organise what to cook, what to buy and plan what to do; but sometimes it may just be to tell the other what regular things are missing and for them to decide what to buy to eat.

'Yea usually you leave all the hardest work for me.'

'who cooks decides'

Others may support this with shopping lists, or planning it the night before. Memory and inspiration also contribute to the process for some.





## CHILDCARE

The infant and toddler age of the child commands the parents' full attention so activities tend to revolve around the child's biological development and rhythm.

With babies, one always has to be looking after the child. Therefore roles depend on whoever is busy with the baby or not.

Sometimes one ends up eating faster or adjusting cooking and eating times to be available to take care of the baby.

With toddlers, the challenge is in feeding them and keeping certain things out of their way.

Therefore they can affect the kitchen organisation, but parents here do not seem too paranoid about it and mainly puts the knives and breakables away.

Feeding is usually by trial and error, intuition and following some advice from healthcare and other sources.

'I don't know if he's going to eat it or not.'

'Sometimes he's already crying when he comes to the table, then he's not eating.'

Some observe those in similar or having gone through similar situations and learn from there. One such couple saw how their two year old nephew moved around reaching for things in their kitchen, so they know what changes are needed.

Some follow the advice just to cope with the weekdays and weekends are more flexible situations.



## FAMILY INFLUENCE

Family here has clearly affected one's relationship with food which acts as a strong primer towards cooking behaviour.

One's grandmothers and mom are quite good cooks who also involved him in the cooking process. Although he does not regard them as fancy cooks, they did make 'good home cooking in Finnish style.'

'When you have good things to eat you well get used to it and then you want to make good food also yourself cos you're accustomed to eating good food.'

Another feels her mom (as well as her grandmother who are great cooks) is her 'idol for being a woman, so, since [her mom] knows how to cook, [she has] to know how to cook.'

Yet another whose mother was a keen cook and he used to help her with his brothers. Now he does a bit more or the cooking in the household or the 'bigger parts' of the meal.

His partner's 'dad almost always made the food' which has affected her 'in that [they] both [should] do the cooking.' Her dad also did not use too much ready-made food and that has influenced her food choices now as well.

Another opines, 'we eat almost everything. I think that's because of our parents, both his and mine are interested in cooking also.' His parents are also very good cooks and there are 'special events that involves really good food.' They also go to their parents to eat often, which he feels is 'important, in meeting people.'



## SOCIAL INFLUENCE (COMPARISON)

When asked how they felt about their own cooking ability or interest in the area, most reflected on it based on the people around them and placing themselves against that scale.

'maybe a bit above average level'

'I think we're pretty good, if we compare to people our age.'

'maybe a bit over average cos I think many people don't cook at all... well some of my friends don't cook really much.'





6.2.5.3. EXPERIENCES

Event / Occasion  
Memories  
Time period / life phase

The experiences involved quite a bit of story telling about moments in one's life. They often offer a context to the memory and provide good leads that could be investigated further into to understand the sigificance of such events and perhaps how these events could be created.

EXPERIMENTING AND  
PLAYING AS KIDS

Some fondly remember handling food as kids with a curious and playful nature.

This was usually with siblings or friends alone and entailed mixing all sorts of things together.

'...well, it's not cooking, but we were playing with food while we were children.'

Usually it started of with trying to make some sweet treat but tend to end up as a fun experiment.

'yea I think it was fun, and fun to make ourselves something. Usually we want to eat some sweet things so we wanted to make it ourselves.'

'But it was more like we had an idea and then we started, and when we realised this wasn't going anywhere, we were just playing with food'



HOME ECONOMICS

Home Economics in Finland is compulsory for all at 7<sup>th</sup> grade. Some had neutral recollections regarding the time when they had these classes.

'...didn't like so much, but didn't hate. Now it's quite fun.'

It was also for quite a few the first time they cooked something. Or the second time after a bad first experience as a child.

'I didn't make or cook at home before that, because my mother did basically all the cooking... We were spoiled kids.'



## SECOND CHILD ONWARDS

It seems that with the second baby, 'you can trust more your own feelings and sense' after the first experience (ref FIRSTBORN)

On the contrary, one had a very bad experience with the first child regarding breastfeeding and the experience in the not so 'baby friendly' hospital. With the second child she is going through all the advice from Neuvola now and also being more informed herself from other sources.



## LIFE PHASE

Certain transitions in life seemed to have varying effect on the individual.

Moving out of home to study was a significant change for some where they started to cook more, 'not very special cooking'.

This was further balanced off by subsidised school meals and many opting to settle their meals there instead.

'of course the money has an influence for what you can buy'

Some in their singlehood also ate out more with pizza and kebab options, or 'just ate some bread' instead of preparing dinner sometimes.

Another notices that as she gets older, many women cook and want to talk about cooking. So she feels she has to know a little more.



## HOME ECONOMICS

One felt that although she made ordinary food in these classes, she felt the food tasted better just because she made it herself.

Another also felt this was the time food she made was more edible.



## SCOUT CAMP

Although one feels that her cooking ability is quite 'bottom'. She has been able to follow recipes to cook for people at the camp.

'But if I need to do food, I can do it, and like for scouts camp I have for many times cooking for one week in the camp for 70 people, it's ok... it's basic stuff, so I can cook.'

Another remembers making simple things that they also had at home.

'And of course when we first go, we had someone older with us, then they probably gave us or show us how to make things also first time.'



## HOSTING

For one, the social aspect of food made him interested in cooking more. He enjoyed inviting friends over and preparing things for them, and maybe it was also to 'impress girls'.

'Also then I didn't like prepare much food for myself, it was usually for someone visiting or something like that.'



## RESTAURANT OUTINGS

Another noticed that her partner never went to restaurants as a child because his family cooked so well. Whilst her family went very often, so she is usually very keen to go to restaurants.

Others do go restaurants as well but none talked about this rub on effect from life. When they went, most usually ordered what they would not make at home.

One even has the perception that restaurants have better food than home.

For others it is also gives them some cooking ideas.



## LIFE PHASE

Some mentioned that when they moved in together, they started to cook even more.

One even tried to device a system to cook or clean on alternate weeks. While others had a more natural assimilation into the cooking role with each other.

The next big transition was when they had children. This affected eating and cooking frequency, eating and cooking time, eating together and the type of food eaten. (ref CHILD'S DEVELOPMENT, CHILDCARE)

Some noticed they cooked the most then on.

'I think after that (moving out) also getting married and then we started eating more home'



## PROFESSIONAL TRAINING

The one with ten years of F&B training is now familiar with cooking by 'some kind of touch'. He also gets inspired easily from many sources. At home he is in charge of what to have in the kitchen and how to organise it.



## NOSTALGIA

When asked about favourite foods and even infer from the foods they ate the most, there is a sense of nostalgia observed from their preferences. These memories includes attachment to places, time periods and culture.

One enjoys the basic white fish because her dad used to make it at the countryside. A relative also used to sell it occasionally, perhaps giving the ingredient extra value. Enjoying it with potatoes also gives a positive association to summer time for her.

Another likes Mustamakkara (black sausage) very much as it brings back memories of her hometown Tampere, where it originates from.

'...food that involves like nice memories is also, and grilling is really nice in the summer time, because when you think about the food, you think about summer and it's warm...'



## HOLIDAYS

For one couple, holidays have grown to be a platform for exposure and inspiration to and from different cuisines.

Another individual's favourite food of fondue reminds her of her ski trips in France.









ACTIONS	LOW IMPACT	MEDIUM IMPACT	HIGH IMPACT
	Memory	Tasting	'Common Sense'
	Sensitising	Tools	'By Heart'
	Sequencing	Media (characters)	Senses
	Media (cooking programmes)	Media (print, internet)	Foraging
	Recipes (first time)	Recipes (for reference)	Habits
		Shopping List	Routine
		Multitasking	Familiarity and Frequency
		Monotony	
		Size, Shapes and Frequency	
INTERACTIONS	Playing	Partner Pressure	Childcare
	Helping	Helping	First Born (advice)
	Family Influence	Family Influence	Family Influence
	Social Influence (doing)	Social Influence (sharing)	Social Influence (comparison)
	Gifts	Gifts	Communication
		For Guests	
		Interruption	
		Choice	
		Rules and Instruction	

Figure 9: Summary of themes of the action, interaction and experiences attributes.

EXPERIENCES	LOW IMPACT	MEDIUM IMPACT	HIGH IMPACT
	Home Economics	Home Economics	Nostalgia
	Experimenting and Playing as Kids	Second Child Onwards	Holidays
		Life Phase	Life Phase
		Scout Camp	Professional Training
		Hosting	
		Restaurant Outings	

#### 6.5.4. SUMMARY

From this overview, we are able to see the various themes of the attributes that have varying impact on cooking behaviour.

These themes show us the areas that affect and/or develop the attributes of cooking sensibility.

As designers, such awareness and presentation of themes can already inspire us towards theme-based solutions, perhaps trying to tackle especially the high impact themes that might indicate what people might be lacking to help them cross the cooking behaviour threshold.

However, as our main focus is behaviour change, we want to, as an explorative express example (ref Figure 2), gather the high impact and strong potential themes and analyse them collectively to understand their tacit/explicit nature. This should reveal to us the way they manifest themselves and help us think of ways to tackle them in the current situation.

In the following pages, we will organise the high impact themes as well as some strong potential themes against the lower level attributes. This will allow us to take a reflective step back to current discussions and perhaps update the information with findings

from this research.

The strong potential themes I have selected are based on themes I felt could go the distance if given more time, such as those that involved exposure for the child. Others seemed like an issue of content and execution. Whilst some with negative connotations like 'monotony' and 'rules and instruction' could be seen as a barrier to address progress in changing behaviour.

As this also serves as a catalogue of findings, it is possible to refer back and even add on to this collection should the situation arise in the iterative process, such as further studies with a different demographic of individuals or further specific research to test the potential of other themes.

For now we move forward with the themes that led to mainly positive examples (some high impact themes created deterrence) to see if they could be synthesised with behaviour change concepts to give a better understanding of how to approach changing cooking behaviour.

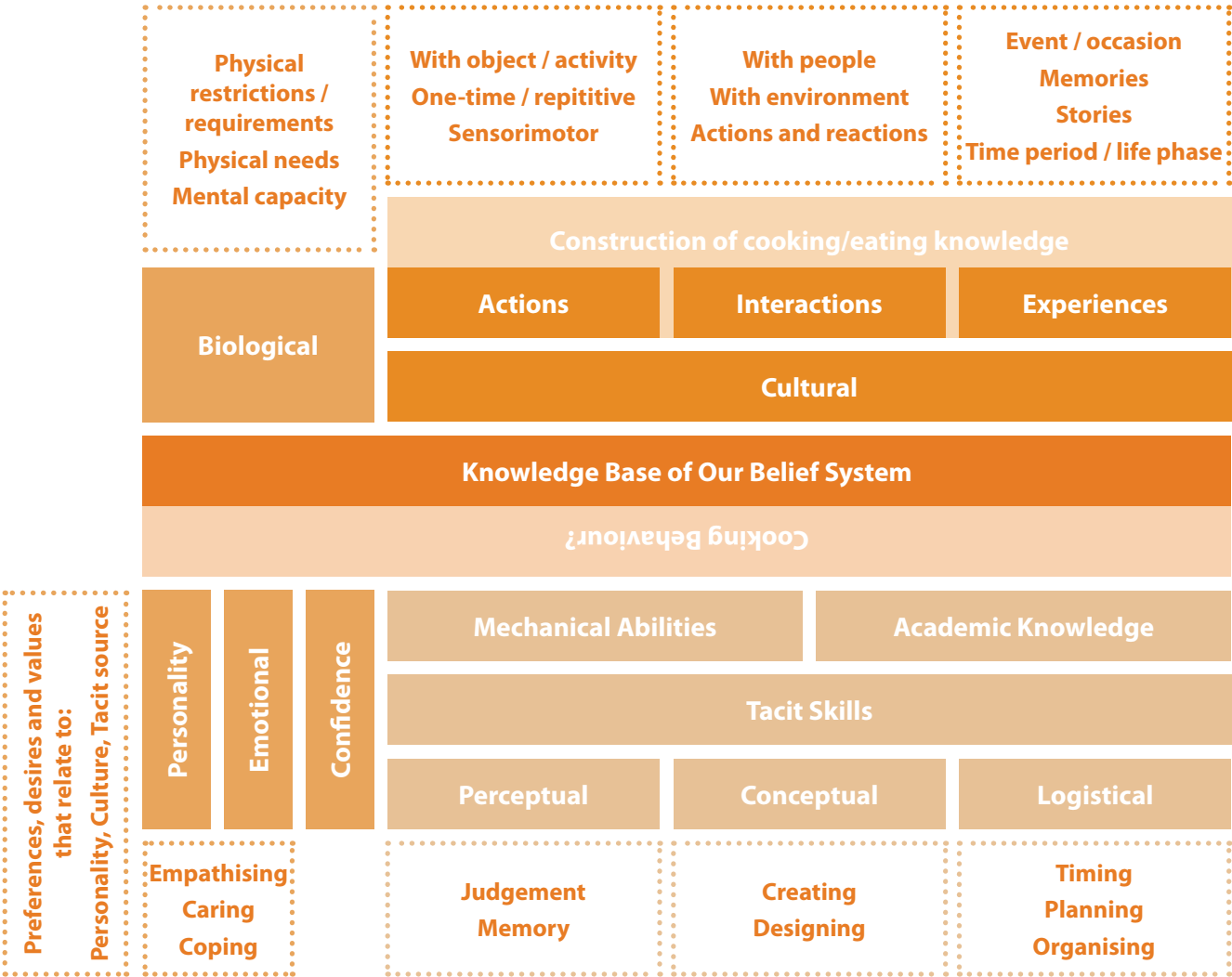


Figure 8: (for easy reference) Behavioural attributes of cooking sensibility (draft)

### 6.3. TOWARDS A COOKING BEHAVIOUR FRAMEWORK

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From the previous exercise, we have managed to organise and extract themes from the findings with the aid of the cooking sensibility framework draft (Figure 7).

The process was both a reflective one and a constructive one; in that by trusting the framework to be a logical way of sorting material, I was able to turn the findings into comprehensibly grouped information for easier referral. Reflectively, because the framework proved to cover cooking behaviour attributes rather comprehensively to work as an organising guide, a functional filter for extracting information.

There were of course other findings that did not fit perfectly into the framework, but they mostly reflected schedules and logistical solutions based on different situations. Behaviourally, we can afford to put those findings aside for now.

The purpose of this section is to reflect further on the framework to see if the findings support the lower level attributes (below the 'knowledge base') of the framework, since the first analysis was based on general concepts of behaviour (upper level attributes). Since the lower level attributes were mostly skills based, this exercise should be able to show us if they are a comprehensive breakdown of the behavioural concepts regarding cooking behaviour. In that way, it might be easier to tackle cooking behaviour through those more specific levels.

Through these reflective and constructive process, and if necessary, other angles of research iterations, we should be able to slowly build a concrete framework of cooking sensibilities or behaviour to guide concept design; addressing behaviour more holistically and cultivatively than as free targets.



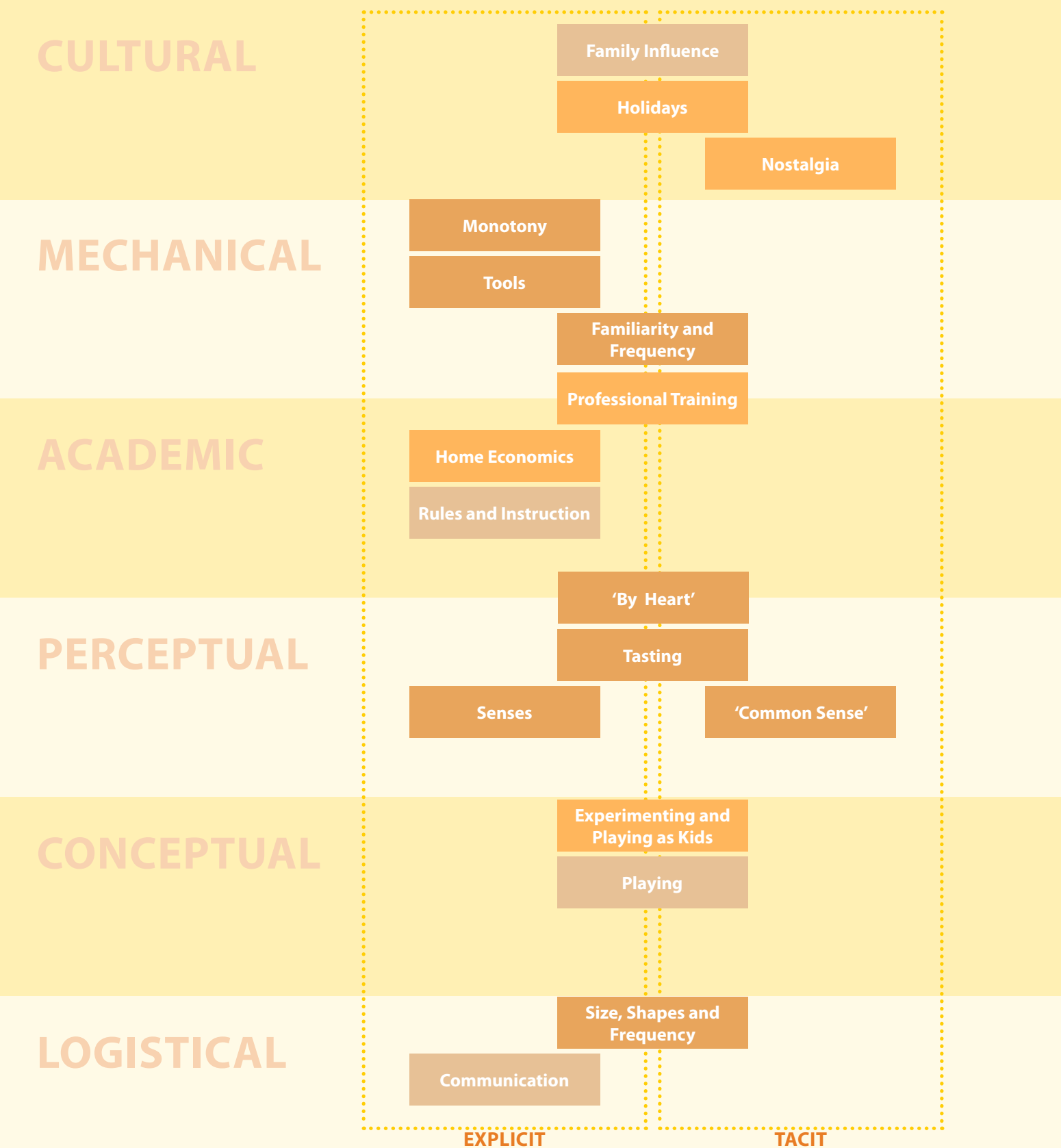


Figure 10: Organising themes against lower level attributes of cooking sensibility framework (draft)

6.3.1. REVIEWING LOWER LEVEL ATTRIBUTES

By taking high impact and strong potential themes into this process, the purpose is to see what they can tell about the breakdown of cooking behaviour.

From Figure 10, we can notice a few things. Firstly, the relatively even distribution of the themes seems to support earlier discussions that cooking ability is affected not only by the more technical side of skills but also the soft skills of perceptual, conceptual and logistical facets.

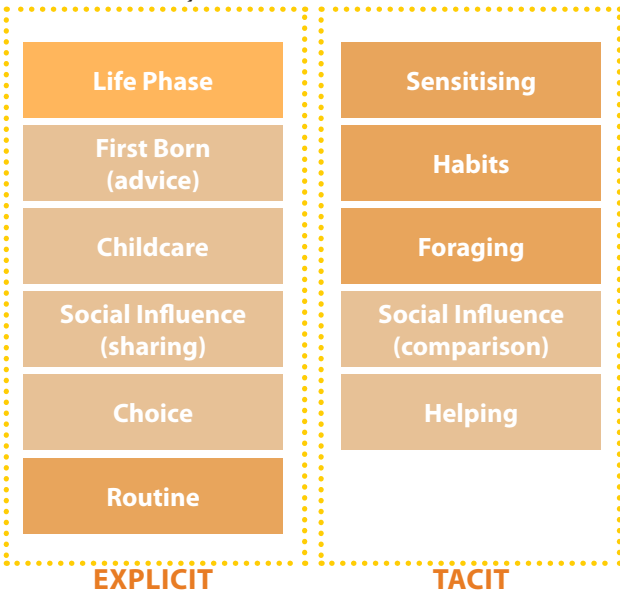
The themes themselves seem to show where and how these attributes are cultivated, providing some potential solutions (since the study is not quantitative to provide justification) and also areas to investigate further into like home economics, childhood and cultural experiences.

In Figure 10, the themes that were hard to fit in the lower level attributes were also hard to group into any other skill traits, so it is better to leave them in the as it is for now under the behavioural concept categories, until perhaps the next iterative cycle.

Nonetheless, in Figure 10 and 11, the themes did fit into the categories of explicitness and tacitness, of which the mention of tacit skills were mentioned in earlier discussions regarding cooking.

6.3.2. EXPLICIT VS TACIT

The explicitness and tacitness of the themes revealed the nature of how they affected behaviour. We shall therefore



move away from the term ‘skills’ since it cannot relate to the themes in Figure 11 and use the word ‘nature’ instead.

The themes with a tacit nature hinted towards some form of accommodation that has happened, whilst others like ‘sensitising’, ‘foraging’ and ‘helping’ hint at the medium or activity through which that might have happened.

If accommodation is what we are aiming for, then we have reason to believe that it could be more effective to tackle the tacit themes that could act as a primer to address the explicit themes and overall cultivate the behaviour.

Trying to understand if themes fit into explicit or tacit categories is another useful way of figuring out how to approach the treatment of the attributes, as well as sensitise ourselves to look beyond the obvious when conducting research.

Explicit and tacit natures also gives way to other polarities such as conscious and subconscious states of the person and direct and indirect effect of certain themes. Keeping this in mind will help us to deal with behaviour more comprehensively and also open up more options and means to address these attributes.

Perhaps it will take further iterative research cycles to explore other areas of cooking behaviour or investigate further the current areas before we can appropriately integrate this explicit and tacit nature into the framework.

It is also yet to be seen if using the framework in other cultures would reap differing or new results, but this is also part of the iterative process to develop a cooking behaviour framework, or perhaps even culture specific frameworks.

Figure 11: Themes that fell outside the lower level attributes of cooking sensibility framework (draft)







## 7.1. INTRODUCTION

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Having some idea of Finnish cooking behaviour through the draft framework, perhaps one might feel equipt to embark on the concept design process. That could be one course of action, especially if we are trying to inculcate behaviour into someone from the very beginning.

However, since the soonest application would be to address current behaviour, current behaviour would not necessarily be in a position to be easily steered based on the above framework because so many other attributes like personality, culture and other values are already shaped and molded over time. Furthermore, cooking behaviour is not just an easy point A to point B scenario, as the framework reflects, it is a complex puzzle of points that contribute towards cooking behaviour, at this stage, we are not even able to know what combination of points and the strength of which points could guarantee one to accommodate cooking behaviour.

That said, this is why we hope behaviour change concepts can help. As theories have been developed over time to understand behaviour, so have these concepts to understand which aspects of behaviour can be attacked most effectively to cross the threshold of change.

I refer to two slightly different sources of behaviour change concepts to reflect against the attributes of the cooking behaviour framework. The exercise should help to reveal how we could tackle the attributes and through which elements or principles.

## 7.2. BEHAVIOUR CHANGE CONCEPTS

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The two concepts we will reference in this section is BJ Fogg's Behaviour Model (FBM) (Fogg, 2011) and *Nudge* (Thaler and Sunstein, 2009) which are heavyweight contributors to the current discussions of behaviour change.

Fogg takes a more systematic approach to dealing with behaviour change, proposing permutations of 'principal factors' that could help one to conduct the desired behaviour.

Thaler and Sunstein on the other hand talks about a few key strategies that when understood, could help one to assign and design appropriately based on these principles.

We will go through the key ideas of these concepts briefly to get an understanding of them. Then we will see how cooking behaviour based on the draft framework fits into their suggestions as a destination we want to reach.

### 7.2.1. BJ FOGG'S BEHAVIOUR MODEL (FBM)

I refer to Fogg's model that is found on his website with continuous updates on the development of the model and a link to the team's Behaviour Wizard (The Behaviour Wizard, 2011) where people can interact with a programme to find what approach they can take to reach their target behaviour.

Fogg's FBM starts from a persuasive design angle, of which 'persuasion' 'refers to attempts to influence people's behaviours, not attitudes.' (Fogg, 2011). Thus it also tends to be more technology oriented in terms of target behaviour. Nonetheless, there should still be rational elements that can be applied to other contexts.

FBM is built around three main factors of 'motivation', 'ability' and 'trigger' that he asserts need to occur at the same time for the behaviour to happen. These factors comprise of other subcomponents that account for how the factors affect human behaviour. He translates all these onto a graph (Figure 12) that helps to visualise the framework conceptually.

#### THREE FACTORS IN THE BEHAVIOUR MODEL AND THEIR SUBCOMPONENTS.

##### *Motivation*

The aim in this model is of course to increase motivation, since low motivation and high ability still inhibits one from performing the behaviour.

The subcomponents Fogg describes that motivates human

behaviour comprise of opposing dimensions. The first core motivator is 'Pleasure/Pain', where the result of and response to the motivator is immediate, 'people are responding to what's happening in the moment.'

The second is 'Hope /Fear' that deals with the measure of 'anticipation of an outcome'.

The last core motivator is 'Social Acceptance/Rejection' where the elements 'controls much of our social behaviour.'

Fogg explains that the FBM does not stipulate the strengths of the core motivator but users of the model should tune the factor to their target behaviour suitably.

##### *Ability*

Fogg opines that as humans, 'we are fundamentally lazy' and the approach should not be about 'teaching people people new things or training them for improvement. He feels that 'simplicity' is the way to help increase people's ability.

Therefore one of the elements of simplicity is 'Time'. If the behaviour needs one to spend time, and one does not have that time, then that makes the behaviour difficult.

The other element is 'Money'. Something that would cost financially for one with little of that resource is not simple. However this can differ based on each individual's circumstance and values.

'Physical effort' is also an element that may deter one if a lot of effort is required for the task.

The fourth element is 'Brain Cycles' which deals with the cognitive load on one person. If the load is heavy, it is not simple. Again this depends on each individual's capacity and can vary.

The next is 'Social Deviance', where one would go against normal conduct. This makes the behaviour not simple.

'Non-Routine' as an element of simplicity where one tends to opt for the default, the routine. So routine is considered simple behaviour.

Fogg states that everyone has a unique 'simplicity profile' which varies with person and context. In analysing simplicity, Fogg also discovered that simplicity reflects an individual's 'scarcest resource at the moment a behaviour is triggered'. This is a good notion to keep in mind when handling a certain group of audience.

### Trigger

This last factor of the FBM deals with prompting one to 'perform a behaviour now.' This is especially crucial when one has enough motivation and ability needed for the behaviour and just need to be triggered to do it.

There are three types of triggers we can use. 'A spark is a trigger that motivates behaviour. A facilitator makes behaviour easier. And a signal indicates or reminds.'

The suitability of these components depend on the motivation and ability levels of the individual with regards to the behaviour. It is most effective when presented at a moment when individuals can take action, therefore 'timing' is very crucial to this process.

Understanding the factors and elements of this model will help to frame the target behaviour so one can select the appropriate triggers to convert the person's ability and motivation level at the opportune moment. The framework would also show which areas might need to be worked on and with which element strategy.

Figure 12 includes a curved graph to highlight that for

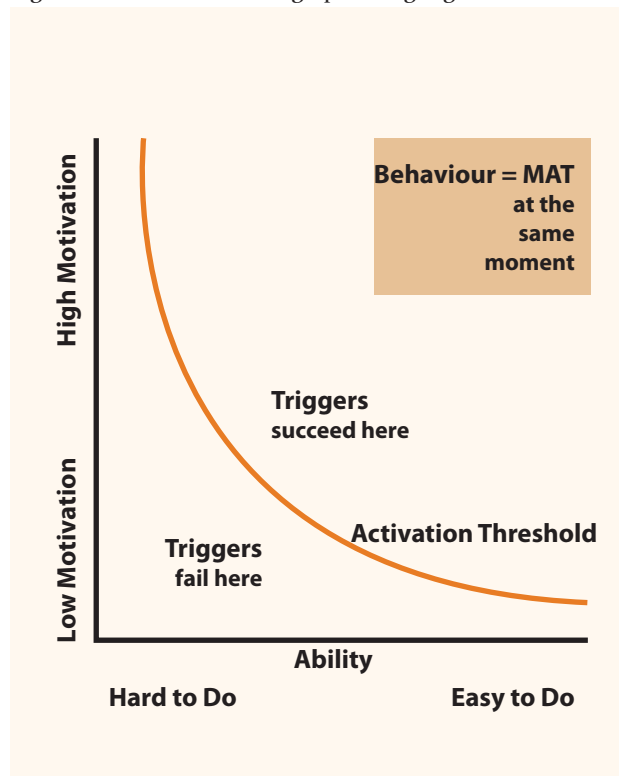


Figure 12: Fogg Behaviour Model (Fogg, 2011)

any behaviour there is a boundary to cross over before triggers would start working. It has yet to be said how one can predict this boundary for different behaviours. But I believe this line is purely representational. The things to measure against are still the three important factors of the framework.

### 7.2.2. NUDGE

In Thaler and Sunstein's book *Nudge* (2009), the content highlights key concepts to helping people make the right choices in their daily lives. It goes on to put the concepts into context by real world examples and show how 'nudges' have worked in contrast to previous or other solutions. These examples tend to lean towards politics and public policy, but the concepts themselves act like guiding principals and are non-contextual.

#### LIBERTARIAN PATERNALISM

One of the core concepts of 'Nudging' is to retain a liberal and paternalistic approach towards providing solutions. The 'Libertarian' aspect asserts that 'people should be free to do what they like', while the 'Paternalism' introduces the concept of 'choice architects' that would help to guide 'people's choices in directions that would improve their lives.'

This 'nonintrusive' guiding effect is what it means to Nudge people's behaviour in a good direction. If one questions the basis of a good direction or Nudge, Thaler and Sunstein address that by asking one to consider the position of a Nudger and the Nudgee and the level of difficulty the Nudgee faces to make certain choices.

'When choices are fraught, when Nudgers have expertise, and when differences in individual preferences are either not important or can be easily estimated, then the potential for helpful nudging is high.' (Ibid., p. 250.)

Essentially, this approach respects people's right to choose but for some complex choices, in everyone's best interest, Nudging can help lead the horse to the water, or perhaps just point them towards that direction, but the liberal aspect of it relies on the person to decide for themselves at the end of the day if they want to drink it or not.

That being said, the approach does recognise the humanistic side of people and takes that into consideration for choice architecture.



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## CHOICE ARCHITECTURE

'Choice Architecture' essentially refers to anything around us that affects our decision making. Therefore essentially there are also Nudges all around us, just whether they were intentionally designed for or not. In this respect, the paternalistic argument is that since Nudges are all around us, good Nudges should not in anyway be detrimental to our environment.

With regards to choice architects, almost all of us can be choice architects when we influence some one's choices. As designers, we are definitely choice architects with the products and services we invade peoples' lives with.

The concept of choice architecture also regards people as being human, therefore six principles (NUDGES) were highlighted to guide choice architects in doing their job based on our humanly fallibility.

### *iNcentives*

The authors suggest thinking about four questions when considering incentives, 'who uses', 'who chooses', 'who pays' and 'who profits', and to then design the incentives to benefit the right receiver.

### *Understand mappings*

This talks about the choices people face regarding mapping choices related to welfare and how they struggle with it sometimes. 'A good system of choice architecture helps people to improve their ability to map and hence to select options that will make them better off.' (Ibid., p. 94.)

### *Defaults*

This principle suggests that all choices have a default option. Due to the scenario that many people tend to take the easiest way out, it is therefore sometimes important to make a default option well designed especially when addressing certain users such as the elderly.

### *Giving feedback*

A simple response, but giving feedback helps people to assess their actions and pause to think.

### *Expect error*

On a human level, error is bound to happen, therefore choice architects should take that into consideration by giving people allowance to make mistakes, or to keep them

from making certain mistakes.

### *Structure complex choices*

This helps when it gets overwhelming to decide. Structuring also sometimes brings a systematic and more approachable way of understanding the choices. That being said, sometimes randomness can be fun for some.

Although these principles relate more to helping people with conscious decision making, it also highlights to us their typical shortcomings of humans that as designers, we also have to be sensitive to. The principles also deal with the possible thought processes of an individual, and how good choice architecture can help to present and facilitate the taking in of information. This reflects the quality of Nudging where such designs are more about the delivery than the deciding. The freedom to choose is always still left to the individual.

In other parts of the book, the authors give examples of social Nudging and one of them is 'peer pressure'.

'If choice architects want to shift behaviour and to do so with a nudge, they might simply inform people about what other people are doing.' (Ibid., p. 66.)

They also speak about people's behavioural pattern to certain situations, which is probably how they came up with the NUDGES acronym that accounts for being humanly.

Apart from social Nudging, 'Priming' is also discussed to show how even just getting people to answer questions on their behaviour or actions, it would make them subconsciously reflect on their own situation and do something about it.

### 7.3. SECOND ITERATIVE ANALYSIS WITH BEHAVIOUR CHANGE CONCEPTS

From these two behaviour change concepts, we can already see the main themes each concept focuses on. In Nudge, there is an ethical and righteous stance taken regarding changing people's behaviour. The Libertarian Paternalism approach aims to act as a balancing measure towards freedom of choice versus providing guiding solutions.

To see ourselves as choice architects and individuals as humans, puts a conscience on our shoulders to design responsibly. Since this thesis deals with the theme of well-being as well, it is an appropriate persona to take up.

Fogg's FBM on the other hand provides a general framework that can help people be triggered towards any behaviour. As his model was mostly describe for use within a persuasive design context, the behaviour mentioned seemed to tackle momentary actions or activities, instead of long term embedded behaviours like cooking. However, his online Behaviour Wizard (The Behaviour Wizard, 2011) does provide suggestions on how to tackle different types of behaviours (Figure 13) but it repeated the simplistic idea of just trying to increase all three factors of the FBM.

	GREEN Do new behavior	BLUE Do familiar behavior	PURPLE Increase behavior intensity	GRAY Decrease behavior intensity	BLACK Stop existing behavior
DOT One time	GREEN DOT Do a new behavior one time	BLUE DOT Do familiar behavior one time	PURPLE DOT Increase behavior one time	GRAY DOT Decrease behavior one time	BLACK DOT Stop behavior one time
SPAN Period of time	GREEN SPAN Do behavior for a period of time	BLUE SPAN Maintain behavior for a period of time	PURPLE SPAN Increase behavior for a period of time	GRAY SPAN Decrease behavior for a period of time	BLACK SPAN Stop behavior for a period of time
PATH From now on	GREEN PATH Do new behavior from now on	BLUE PATH Maintain behavior from now on	PURPLE PATH Increase behavior from now on	GRAY PATH Decrease behavior from now on	BLACK PATH Stop behavior from now on

Figure 13: The Behaviour Wizard suggesting a purple path to deal with the scenario of 'increasing behaviour from now on'.

On some levels, we can see how the approaches of Nudge relate to the FBM. 'Incentives', 'giving feedback' and 'expect error' relate to the motivation factor the model addresses, while 'understanding mappings', 'defaults' and 'structure complex choices' relate to making things more simple, or the ability factor of the model. Nudging itself can relate to the trigger factor but it is probably the freedom of choice that separates these two concepts from each other.

FBM's goal is to as much as possible get people to do the behaviour, while Nudging was to give one as much an informed choice as possible and hope for the best.

With cooking behaviour, of course my personal desire is that one day everyone will be so empowered with cooking sensibility that the control of our health, diet and the food system lies in our hands. Nonetheless, seeing that cooking involves quite many areas of hard and soft skills, ability wise, the behaviour is not simple. It takes 'time', 'money', 'physical effort', 'brain cycles' and varies with the other factors. One just cannot make cooking simple and that is something that we have to recognise.

Therefore it seems that the potential may lie more in motivating the individual, but perhaps not entirely with the elements the FBM suggests. Although it also seems hard to relate the principles of choice architecture with changing cooking behaviour, there is much potential in social Nudges.

Both family and social influences play a big role in a person's approach to eating and cooking and could therefore have a 'priming' or 'pressure' effect on the individual. Although the theme of 'choice' was not a high impact theme, if Thaler and Sunstein are right, then providing one with an informed choice should at least leave one informed even if the choice is not made. This is also essentially the basis of the notion that cooking sensibility should equip one with the ability to make sensible food choices for one's daily life.

To push the boundaries of this investigation, I would like to just take the themes away from the previous framework for a moment and just freely organise them according to the elements, factors and principles brought up by the behaviour change concepts. Obviously none of the concepts are a perfect fit for cooking behaviour, however, organising the themes to behaviour change attributes could offer a different perspective to the framework, and hopefully reveal how we could reach a cooking-behaviour change model or concept as well.

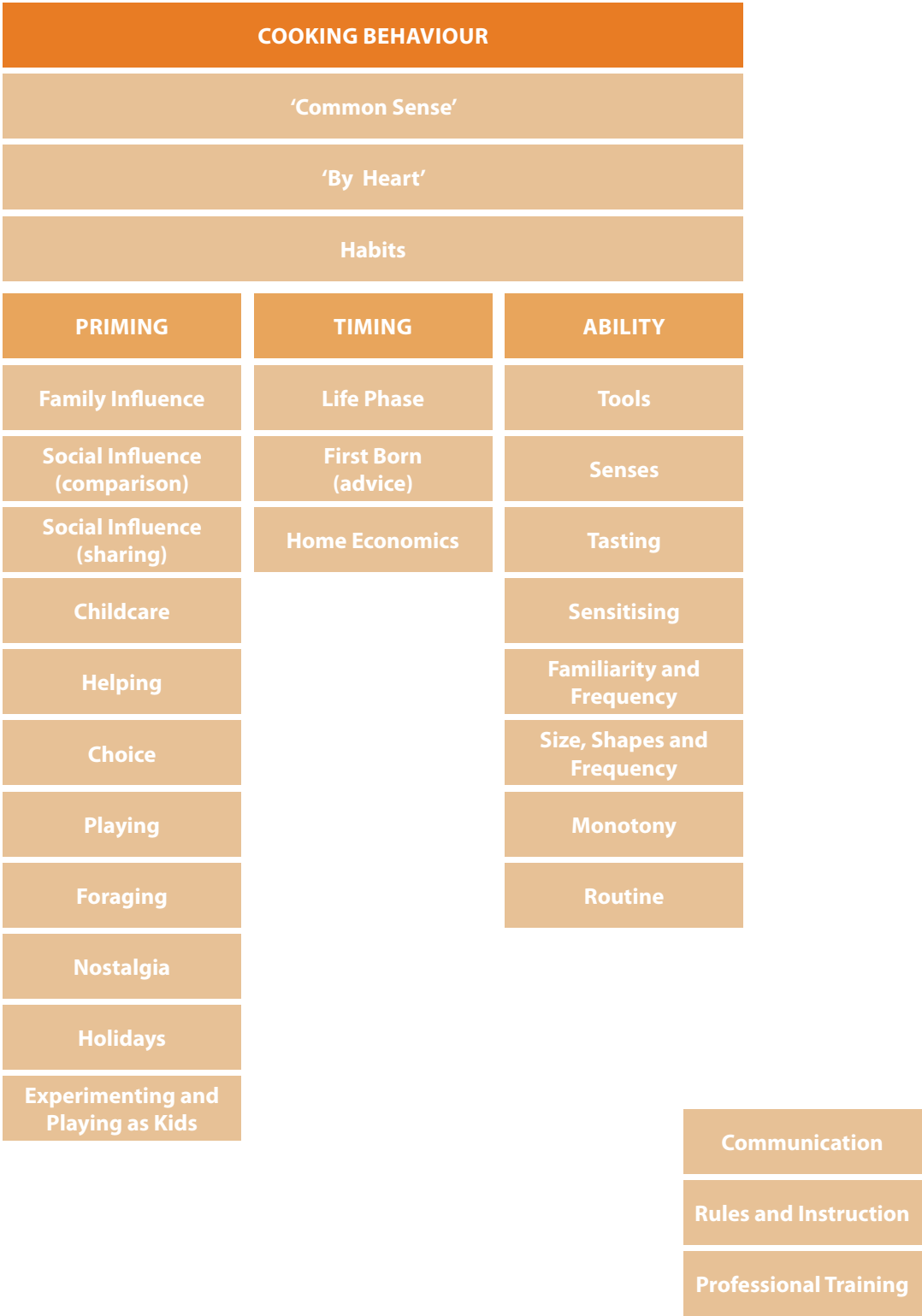


Figure 14: Organising cooking behaviour themes against behaviour change concepts

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Perhaps with some extra forcing, the diagram on the left can fit some of the principles of both behaviour change concepts. I have gathered the themes of ‘common sense’, ‘by heart’ and ‘habits’ together to represent the intrinsic qualities of cooking behaviour should one have already reached that target behaviour. Quite many of my interviewees did reach such standards so it is no wonder these themes have high impact.

In terms of ability, it is clear as mentioned before, that making it simple is quite hard to do. With themes like ‘frequency’ and ‘monotony’, the time investment and physical effort does seem very great. However, some of the other themes do demonstrate already tangible elements that could cope with the ability.

‘Tools’ for instance have probably been the biggest area design contributes to with choice architecture to help make some aspects of cooking easier and more attractive. However if we look back at the findings, these tools have not really changed behaviour but just made it a bit easier. To start with, most of the couples had a positive everyday cooking behaviour already.

‘Senses’, ‘tasting’ and ‘sensitising’ do show some simple tactics to grow cooking ability by enhancing one’s perceptual skills. This is also probably addressed by efforts to increase people’s exposure to good quality ingredients and food through different food movements.

On the other side, I felt ‘priming’ was a more appropriate term than motivations since these themes seem to aid motivation but on a more tacit level. They have however primed the individual towards cooking behaviour though not entirely in the social sense. Tackling these themes are also not easy because they are inculcative in nature. I will explain more about this in the next section.

There were not any themes that seemed like triggers on a physical level other than ‘tools’. However based on the idea of timing, ‘life phase’ and ‘first born’ serve as transitional triggers that spark more cooking behaviour. With regards to ‘first born’, it also seems like a good entry point for behaviour change as the parents are most receptive and trusting to all types of information relating to family and childcare. ‘Life phase’ also exhibits such qualities but I feel not as strongly. On the other hand, ‘home economics’ perhaps did not have a good implementation timing (7th grade) since it did not really leave much effect on the couples at that point of time in their lives. It seems when they were under ten years old, the interest and curiosity is stronger there, but it also depends how the lesson is taught with allowance for experimentations, and perhaps even to

‘expect error’ to encourage learning or promote priming.

Although not included in this process, but I feel having high impact on motivation, cultural attributes involving the supermarket or food provision system could also be a place where more Nudging can happen.

It is at this point that it occurs to me that perhaps we have to address the treatment of all the information so far separately: cooking behaviour and cooking-behaviour change. We shall go further into this discussion in the next section.

It was difficult to really place ‘communication’, ‘rules and instruction’ and ‘professional training’ anywhere. But if this were synthesising with behaviour change concepts, then I suppose not everything will fit in since the findings themselves covered a whole range of eating and cooking related topics.

## 7.4. BEHAVIOUR VS BEHAVIOUR CHANGE

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When we think about change, the idea is that there is something in the present that we are hoping to affect. With cooking behaviour, although deskilling arguments were refuted as it seemed to address only a few dimensions of cooking, there is still a general sense that some form of decline will hit different cultures due to the changes in lifestyle and the food landscape.

The group of couples that I interviewed mostly displayed positive cooking behaviour, managing relatively well with life transitions and also having a healthy 50-50 role in terms of cooking as a couple. What the findings revealed seemed to reflect cooking behaviour as a whole than the lack or little of it, except for one individual.

So while we gather more insight into the cooking sensibilities/behaviour framework, understanding how to reach a framework for cooking-behaviour change seems more complicated than the behaviour change concepts suggest. What we see from Figure 14 is how the barriers to entry, ability, is difficult to win over with simplicity or through motivative or priming tactics should one lack ability to begin with.

Furthermore, when we consider the notion of scarcest resource for simplicity, factors like time, energy and hunger reside at the top. Although they seem very difficult to address when combined with ability barriers, if we want to think about behaviour change, we also have to consider them.

Motivation wise, the themes fall more under priming, revealing how inculcative and cultivative in nature they are than counteractive, like the opposing dimensions of simplicity. Their tacit qualities also mean that they are hard to measure and approach directly even though they are observable. They are inculcative also because they seemed to have been shaped over time, especially from themes such as 'family influence'.

Right now with Figure 15, removing all inculcative themes, what we are left with are still quite a few themes to work with, it seems. However, with the underlying scarcest resource, ability barriers and also interest dependent scenarios, it is hard to mix and match the attributes to get them to occur at a level that can cross the 'activation threshold'.

Due to the complexity of how the themes occur and relate to different attributes, there does not seem to be any obvious pattern or grouping of these themes to even suggest a weak framework. The one shown in Figure 15 only seems to somehow categorise them but not really showing the

relationship between them that can have an equative effect.

Having a clearer idea of behaviour and behaviour change concepts now because of the current process, we should be able to go back to the iterative cycle with a more focused method of gathering and extracting information that could help with constructing a cooking-behaviour change concept or approach.

That being said, there are actually two ways to relook at behaviour change. Although I mentioned initially that behaviour change tactics seems more counteractive in approach, however, if we want to affect change for a better future per se, tackling cooking behaviour itself will still contain an element of change.

This change would mean providing solutions and creating opportunities to help people embark on the inculcative route addressing the inculcative themes.

This means that using the cooking sensibility/behaviour framework can help create generational change, while having a cooking-behaviour change model can help create instantaneous change. Therefore two approaches of change to tackle one behaviour towards one destination.

COOKING BEHAVIOUR		
'Common Sense'		
'By Heart'		
Habits		
PRIMING	TIMING	ABILITY
Family Influence	Life Phase	Tools
Social Influence (comparison)	First Born (advice)	Senses
Social Influence (sharing)	Home Economics	Tasting
Childcare		Sensitising
Helping		Familiarity and Frequency
Choice		Size, Shapes and Frequency
Playing		Monotony
Foraging		Routine
Nostalgia		
Holidays		
Experimenting and Playing as Kids		

Figure 15: Organising selected cooking behaviour themes against behaviour change concepts







## **8.1. ABOUT THE PROCESS**

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This thesis was as much an exploration of a theoretical based, iterative research process as it was of cooking behaviour to reach a design for behaviour change objective.

The theoretical approach was a way of organising, compiling and analysing findings both from the background research and user research, sometimes synthesising with them to form a better understanding of cooking behaviour.

Although the process started with an overwhelming mass of information and theoretical concepts, which was still incomprehensive of the topic, the process helped to guide the investigation forward with allowance to return and/or add/minus more information.

The outcomes of the thesis, although mostly as a demonstration of taking an express route through the process, produced reasonable outcomes. For one, it gave a good starting draft for a cooking sensibilities/behaviour framework. For the other, probably lacking enough iterative research, could not offer any tangible outcome, but did raise flags as to how to go back into the cycle being aware of certain change concepts and the nature of cooking behaviour.

Nonetheless, the complexity of understanding cooking behaviour should not enable one to comprehend it fully with one full swipe. The plausible draft of the cooking sensibilities/behaviour framework was likewise only possible because of the extensive contribution of information on the topic from various sources.

### **8.1.1. STRENGTHS AND WEAKNESSES OF THE INVESTIGATION**

Perhaps the biggest limitation of the study was the sample participant group. That is not to say they were the wrong group or an inappropriate group to investigate. They were very much crucial to the process, but making the investigation a bit lop-sided. To strengthen the research, I still feel, time permitting, it would have been very insightful to have interviewed other groups of people, especially those with a negative cooking behaviour. But as mentioned, even just finding and approaching such a group would be a very sensitive matter, and include further challenges as to what kind of questions to ask to get the most from it.

The other limitation or weakness could also be in the selection of theories. Selecting the most 'primitive' one might not have been the most appropriate, but finding one associated closely to cooking behaviour could have turned out to be bias. Perhaps with this draft framework, it would be easier to find a theory that could relate to this structure of cooking behaviour and begin another iterative process

with that.

Finding contextual background information was also a bit tricky, since most would be in Finnish, so my only strategy was to find more European context literature, but even then, food culture can be so different across Europe.

Perhaps one strength of the thesis was the process, but even then, there had to be a level of trust to just follow it and hope it reaches the intended destination. The process was drafted by a knowledge of a traditional design process, and structured logically to give enough leeway to embrace the topic of cooking behaviour.

At some point, one has to also be a bit more clear about the stages of the iterative cycle and at what point to include what theory and to use which approach.

Documentation is always important at all times to allow one to refer back to information and change or modify the direction if necessary.

therefore the type of approach to consider.

It is only by the understanding of cooking behaviour through this framework, and the understanding of behaviour change concepts that we can try to see where and how design can help to cultivate and inculcate cooking behaviour. This cooking sensibility should thus inevitably help with food and diet choices and make cooking less a chore but a reward for one's well-being!

### **8.1.2. BACK TO THE RESEARCH QUESTIONS**

1. What is the definition of cooking?
2. How does cooking relate to wellbeing?
3. What is cooking behaviour?
4. What is the status of cooking in Finnish homes at the moment?
5. How and where can design affect the everyday cooking behaviour positively?

Overall questions 1-3 were answered in the background research of the topic. Finding out various means of understanding what cooking is essentially brought up key concepts that were validated to be behavioural in nature by the understanding of behaviour theories. Combining the various attributes of cooking sensibilities with behaviour concepts (Figure 7) helped to transition the understanding of cooking from the literature to become a valid framework for cooking behaviour.

Conducting user studies helped to test and evaluate the framework draft and also understand everyday cooking behaviour in the local context. The local examples also helped me to understand the attributes of cooking behaviour better and even reveal some areas to tackle already. These examples also helped in evaluating behaviour change concepts by revealing the nature of the themes and



## 8.2. DESIGN IMPLICATIONS

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There has always been some level of scepticism regarding design when dealing with topics that try to enhance our well-being. Often it results with simply more products and temporal commentary through interventions. I know that puts me on a high horse but excuse my demeanor for want of objective discussion. After all, some scepticism and intuition usually starts and fuels a process.

With my interest to contribute with design in this area of food and cooking, I took advantage of this chance to explore a topic that could give me a holistic view towards this area. Unavoidably, any design in this area is under the umbrella of food design and that is where I see the results of this research contributing to.

In some ways, it can already provide inspiration and themes for designers and artists to look into and address. In fact I myself could not help having some concepts floating in my head as I was handling the first iterative analysis.

Food design usually tends to take on the more direct elements of food because of their visual and glamorous engagement. The cooking behaviour framework draft already shows that current approaches need to go beyond the explicit nature of cooking and deal with the tacit side as well.

Since I am trained as an Industrial Designer, I hope the results of my thesis impact there the most. On the industry level, design has been trying to advocate sustainability of which well-being would fall under. On the industry level, the advocacy is supposedly meant to enhance the user's life. However on the industry level, the benefit is still towards the, industry. With this conflict between user and industry, my biggest gripe is that at the end of the day, the focus is still on understanding consumer behaviour than on human behaviour.

If we do want to use design to increase people's well-being be it through addressing cooking behaviour or solving problems in the food system, then we need to go back to understanding human behaviour. My tedious effort to go through this research process was essentially to do that, so I may, with this knowledge, get the chance to contribute with design in meaningful and responsible ways one day.

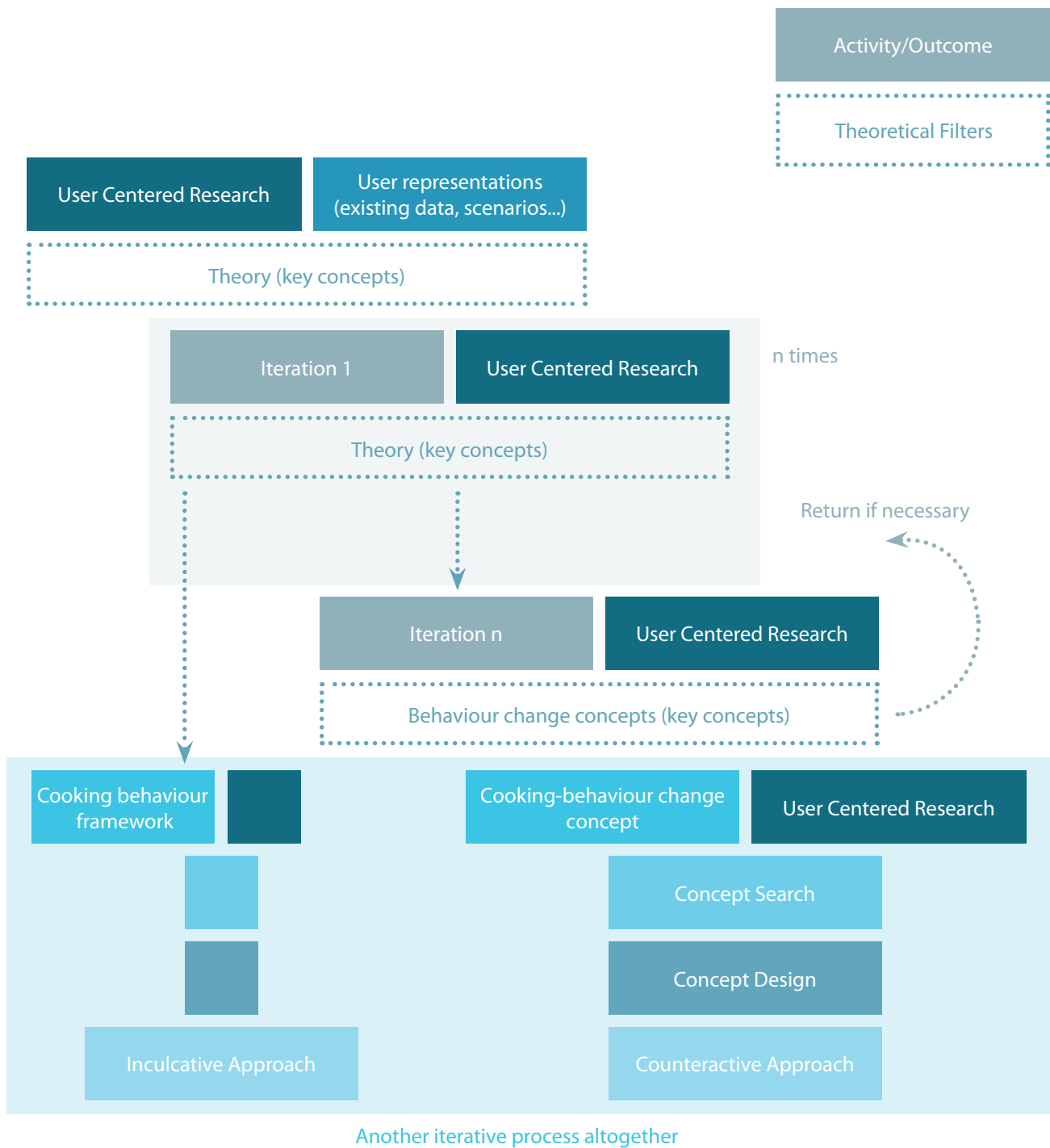


Figure 16: My design-research analysis iteration process, with two routes for design for cooking behaviour change.

### 8.3. DESIGN FOR COOKING BEHAVIOUR

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In closing, I would like to refer back to the iterative design-research analysis process, a modified version can be found on the left. From Chapter 7 we have realised that behaviour change can be tackled with two approaches depending on the situation and the intention. I would assert that the inculcative approach should already start now.

Nonetheless, it would be valuable to continue the iterative process to strengthen the behaviour framework and also explore the behaviour change concepts suitable for cooking behaviour. In both areas the need and role of design can be very great since it is not just about the technical measures in dealing with cooking behaviour.

As to navigating the iterative process in the future, I would suggest exploring more demographics and even cultures. Exploring deeper into one culture could give more headway into the behaviour change concept. Exploring more theories could also give a better understanding to the breakdown of behaviour attributes, but at some point, the theories should converge to common concepts and then maybe the iteration would just proceed with demographics and culture with a solid fixed theoretical filter.

Overall, as a response to the current food system and food movements, I urge that the framework draft should be treated as a whole than just the more interesting themes. It is not about finding a good positioning for products and services, but about the themes and attributes as a whole that would affect cooking behaviour. If one area is greatly lacking in a culture, then perhaps we as designers can try to contribute to that area with creative and engaging solutions.

That being said, I believe this framework draft and results are not just useful in design, but for any kind of planning and implementation team who want to address the topic of cooking.







## REFERENCES

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- Ackermann, E., 2011. Piaget's Constructivism, Papert's Constructionism: What's the difference? Future of learning group publication. <http://sites.google.com/site/constructingworlds/what> . Accessed October 2011
- Arnould, E.J., Price, L.L., 2001. Bread of our mothers. Ruptures and continuities in families and homemade food traditions. Paper presented at the 8th Interdisciplinary Conference on Consumption, 26-28 July, La Sorbonne, Paris.
- Bugge, A. B., 2003. Cooking – As Identity Work. Centre for Rural Research – Paper no. P-1/03, Norway.
- Corner, J., 1997. Television in theory. Media, Culture and Society, Vol. 19, p. 247-262.
- De Certeau, M., Giard, L., Mayol, P., 1998. The Practice of Everyday Life. Volume 2: Living and Cooking. University of Minnesota Press, Minneapolis.
- Diener, E., 2000. Subjective Well-Being, The Science of Happiness and a Proposal for a National Index. Vol 55, No. 1, 34 – 43, American Psychologist
- Fogg, B., J., BJ Fogg's Behaviour Model. <http://www.behaviormodel.org/>, accessed October 2011.
- Geertz, C., 1973. Thick Description: Toward an Interpretive Theory of Culture, p. 3-30. In The Interpretation of Cultures: Selected Essays. Basic Books, New York.
- Geertz, C., 1973. Interpretation of Cultures. Basic Books, New York.
- Goody, J., 1978. The Domestication of the Savage Mind. Cambridge University Press, Cambridge.
- Jamie Oliver Foundation, <http://www.jamieoliver.com/foundation/>. Accessed October 2011
- Koskinen, I., Battarbee, J., Mattelmäki, T., 2003. Empathic Design. Edita Prima Ltd, Finland.
- Kjærnes, U., 2001. Eating Patterns A Day in the Lives of Nordic peoples. Report No. 7. Norway: National Institute for Consumer Research.
- Laaksonen, P., Laaksonen, M., Leipämaa, H., 2002. Consumers' Orientation to Food and Eating A Modification and Application of the Food-related Lifestyle Instrument of Brunsø, Grunert & Bisp. Tutkimuksia 243. University of Vaasa, Finland.
- Lotte Holm, 2001. See Kjærnes (2001).
- Maffei, S., Parini, B., 2010. FOODMOOD. Mondadori Electa S.p.A., Milan.
- Mäkelä, J., 1996. Kunnan ateriat. Pääkaupunkiseudun perheellisten naisten käsityksiä [A proper meal: Exploring the views of women with families]. Sosiologia 33 [1]: 12-22.
- Mäkelä, 2001. See Kjærnes (2001).
- Menell, S., 1996. All Manners of Food: Eating and Taste in England and France from the Middle Ages to the Present. University of Illinois Press, Chicago.
- Nestle Family Monitor, 2001. No. 13, Eating and Today's Lifestyle. Research by Market and Opinion Research International.
- Piaget, J., 1973. Child and reality. Grossman, New York.
- Piaget, J., 1951 (reprinted 1966). Play, dreams and imitation in childhood. Norton, New York. Presnell, F., 1999. Navigated from Jean Piaget Society webpage ([www.piaget.org](http://www.piaget.org)). <http://muskingum.edu/~psych/psycweb/history/piaget.htm>, accessed October 2011.
- Pollan., M., 2010. USA [http://fora.tv/2010/01/23/Michael\\_Pollan\\_on\\_Food\\_Rules\\_An\\_Eaters\\_Manual](http://fora.tv/2010/01/23/Michael_Pollan_on_Food_Rules_An_Eaters_Manual). Accessed October 2011
- Pollan., M. Food Movement Rising. <http://www.nybooks.com/articles/archives/2010/jun/10/food-movement-rising/?page=1>. Accessed October 2011
- Randall, S., 1999. Television representations of food: a case study. A semiotic analysis of Rick Stein's Taste of the Sea television food programme. International Journal of Tourism and Hospitality Research, Vol. 1, No. 1., p. 41-54.

- Schwartz Cowan, R., 1983. *More Work for Mother: The Ironies of Household Technology from the Open Hearth to the Microwave*. Basic Books, New York.
- Short, F., 2003. Domestic cooking skills – what are they? *Journal of the HEIA*, Vol 10, No. 3, UK
- Short, F., 2006. *Kitchen Secrets: The meaning of cooking in everyday life*. Berg, UK.
- Sigel, I. E., Cocking, R. R., 1977. *Cognitive Development from Childhood to Adolescence: A Constructivist Perspective*. Holt, Rinehard and Winston, USA.
- Singleton, W. T., 1978. *The study of real skills. Vol. 1 The analysis of practical skills*. MTP Press, Lancaster, UK
- Sutton, D., 2001. *Remembrance of Repasts, An Anthropology of Food and Memory*. Berg Publishers, Oxford.
- Symons, M., 1998. *A History of Cooks and Cooking*, p. 355. University of Illinois Press, Chicago.
- Shweder, R. A., LeVine, R. A., 1984. *Culture Theory – Essays on Mind, Self, and Emotion*. Cambridge University Press, USA.
- Thaler, R., H., Sunstein, C., R., 2009. *Nudge, Improving Decisions About Health, Wealth, and Happiness*. Penguin Group, USA.
- The Behaviour Wizard. <http://www.behaviorwizard.org/wp/>, accessed October 2011
- The Washington Post. Can people really learn to cook by watching tv? <http://www.dailymail.com/foodandliving/201006150726>. Accessed October 2011
- Turner, V. W., 1967. *The Forest of Symbols*. Cornell University Press, Ithaca, N. Y.
- Wansink, B., 2003. Profiling nutritional gatekeepers: three methods for differentiating influential cooks. *Food Quality and Preference* 14, USA, p. 289-297.
- Warde, A., 1997. *Consumption, Food and Taste. Culinary Antinomies and Commodity Culture*. Sage Publications, London
- Wellens, J., 1974. *Training in physical skills*. Business Books, London, UK.

## **APPENDIX A - INTERVIEW QUESTIONS**

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What is your definition of cooking?

How would you describe your cooking skills or level of it?

What events have impacted your life in terms of cooking?

Who has made an impact in your life in terms of cooking and food?

What media has affected your perception or attitude towards cooking?

Describe your first proper experience of cooking, how was it like?

What is your level of interest in cooking? Can it change? How?

What is your level of interest in eating/food?

Who cooks more? Why do you think that has happened?

What changes did you make to your cooking behaviour when you moved in together/had a baby/child grew older? Why?

What do you like about cooking? Give an extreme scenario that would make you truly enjoy cooking? (or imagination)

What don't you like about cooking? Give an extreme scenario that would make you absolutely dislike cooking? (or imagination)

What affects your cooking experience? (positively/negatively)

What are your favourite tools? (which were bought or received) (P7)

What are your least favourite tools? (which were bought or received) (P8)

What tools would you like to get? Why?

What would you change in this kitchen that might help you want to cook more?

What would your dream kitchen be like?

What is your daily work schedule like?

What is your daily/weekly eating pattern like? (breakfast, lunch, dinner) Why do you think it is as such? (how about the child)

(How much time do you spend in the kitchen? Doing what?)

Do you have any particular rituals/habits or preferences towards cooking and eating?

When do you plan what to eat?

How much time do you spend cooking? Eating? (weekend/weekday difference?)

Ideally, how much time are you willing to invest to cook your meal?

What kind of foods do you eat most often? Why?

What are your views towards pre-prepared food? Definition?

Do you plan your shopping list? Based on what?

Are there any frequented supermarkets? Why?

What kind of food would you prefer to eat?

What comes to mind when you decide to cook?

What goes through your mind when you are cooking? (P13)

What goes through your mind when you are cooking? (P13)

What cooking methods do you use most often? Why? (P6)

How do you know when your food is cooked?

Where did you learn that?

How often do you use/refer to recipes?

Does it matter for the food to turn out the same?

How has eating changed once you were pregnant?

How do you know when to feed the baby what?

How do you manage your child's meals?

What have you changed in the kitchen when your baby grew bigger?

Are there any rules for your child and the kitchen?

Are there any rules for your child regarding eating?

Are there any challenges when feeding your child? How do you deal with them?

Do you think you will teach your child to cook/eat? When, how/Why not?

(How often do you feed your child pre-prepared food? Why? What kind?)

Do you set the table often? (P11)

What special steps do you take when eating together?

Any fixed seating at the table? Why? (P10)

How often do you eat together?

What happens when not?

Do you eat anywhere else in the apartment?

Is the kitchen organised in any particular system?

Any particular intended features/look?

Refrigerator/freezer? (P4)

Were there any considerations regarding this area when moving in? What?

Who usually does the washing up? Why? (P12)

What goes through your mind when washing up?

What are your thoughts regarding the cleaning aspect of the kitchen? (dishes, spills, hygiene & cleanliness)

What affects your lunch choices?

What affects your food choices when you eat out?

Does it matter what food you eat when you're hungry? (outside)

What is your favourite dish?

## **APPENDIX A - INTERVIEW QUESTIONS (CONT)**

What is your idea of wellbeing?

Do you think cooking can relate to wellbeing? In what sense?

What do you value most in life? (list 3 areas)

### PICTURES to be taken

- P1. Kitchen overview
- P2. Cupboards, drawers
- P4. Refrigerator/freezer
- P5. Dining/eating area(s)
- P6. Most used tools
- P7. Most favourite tools
- P8. Disliked tools
- P9. Positive/negative points of the kitchen
- P10. Position around dining table when eating
- P11. Table setting (what else is table used for?)
- P12. Washing up posture/movement
- P13. Cooking posture/movement
- P14. Where they put the baby/child while cooking, why?
- P15. Where does the child eat?

### SKETCHES

- S1. Rough sketch of house layout
- S2. Rough sketch of kitchen layout, trace some movements while cooking/cleaning

